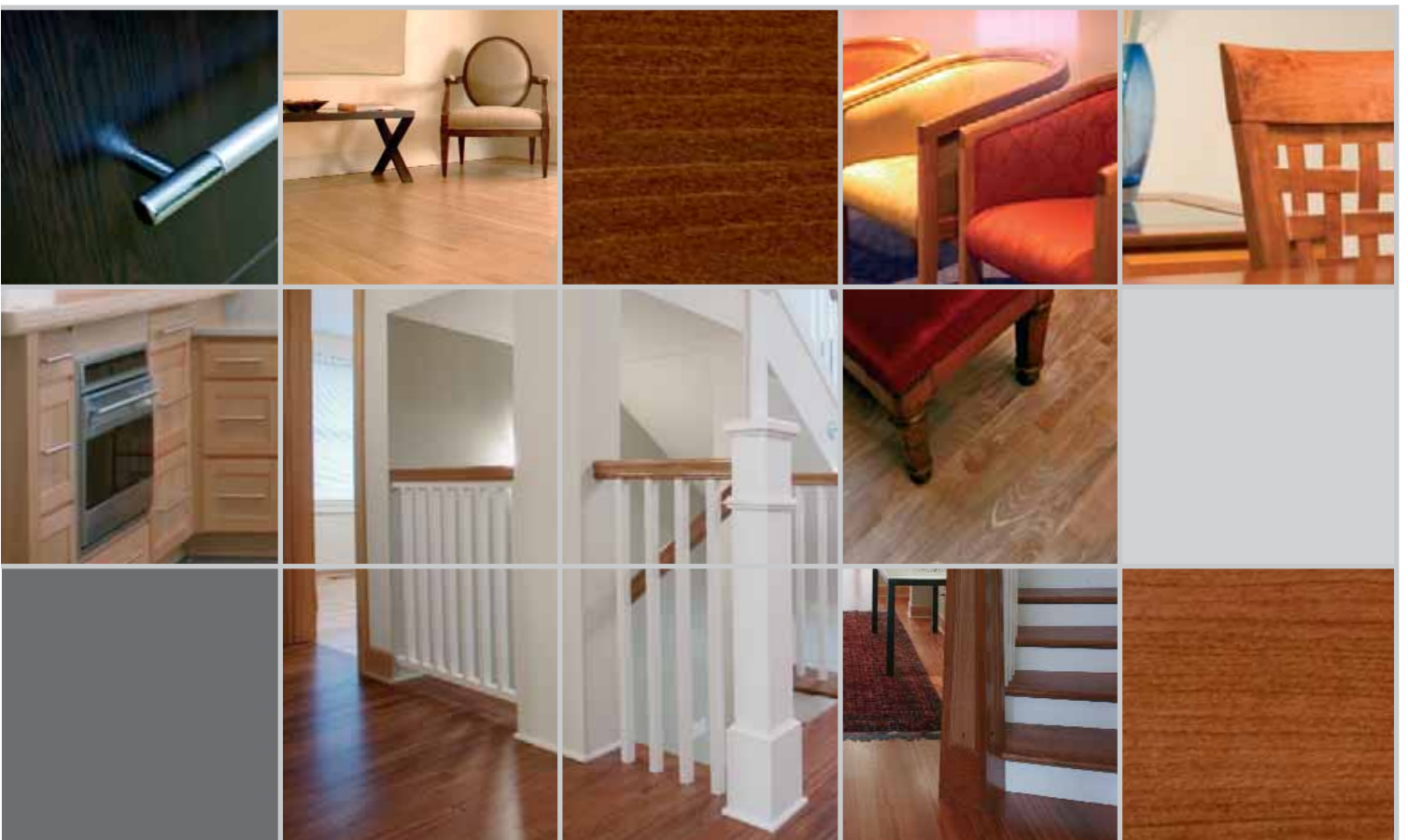


## WOOD VARNISHES & STAINS

Complete Range of Products for Refining Wood Indoors



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Wood Varnishes & Stains



# WOOD VARNISHES & STAINS

Our Wood Refinement Products: NC/PUR Varnishes, Aqua Varnishes, UV Varnishes and Stains

## NC/PUR Varnishes Complete solutions for wood furniture & stairs

As a partner in the wood working trade with more than 60 years of experience, Remmers offers the carpenter and joiner trade a complete range of varnishes for wood from NC varnish for normal loads all the way to a high quality range of PUR varnishes for interior finishing.

- Just one hardener component and one thinner for all varnishes which minimises the risk of storing products past their use-by date and sources of errors.
- Very good resistance to chemicals and extremely resistant to mechanical loads
- Non-yellowing PUR varnishes without blending with NC
- Efficient working properties through excellent build, fast drying and excellent sanding behaviour
- Deco Paint compliant varnish systems for wood stairs

## Aqua Varnishes An environment-friendly system

So far, law makers have mainly concentrated on reducing the emission of solvent based varnishes that were used in large-scale operations (VOC Directive). Through the "Ordinance on Limiting VOC Emissions from Paints and Varnishes" (Deco Paint Directive), which went into effect on

December 23, 2004, the percentage of volatile organic compounds (VOC) in varnishes is now limited by stipulated highest values.

The first stage, which has been in effect since 2007, included the skilled trade, regardless of the quantities they used. The second stage, which reduces VOC limit values even further, went into effect in 2010.

With this initiative, law makers want to force a change from solvent based to water based paints and varnishes. With our Aqua varnishes, users in the carpenter/joiner and interior finishing trade now have a complete programme of water based varnishes at their disposal that are true alternatives to former solvent based, 2-component interior varnishes.

## UV varnishes for the wood working trade

The 100% UV varnishes are a novelty in our range of products. They are extremely suitable for efficient coating of flat, 2-dimensional elements such as interior doors, (veneered) wood based panels used for producing furniture and store/trade fair fittings, table tops, stair steps, etc. There are no drying times. After the elements have been cured by UV lamps, the surfaces are completely finished and can be packaged or used.

## Oils & Waxes – natural raw materials & natural looking surfaces

Remmers also offers alternatives for conventional varnishes based on natural oils and waxes for the entire interior finishing area and for refining wood stairs.

## All types of stains – highly flexible & for universal use

With the completely new, highly flexible stain concept developed by Remmers there are no limits to the shades of stain colours that you can create – thanks to the individual kit principle for solvent based stains, Aqua Compact Stains as well as Positive and Wax Stains.

With just 3 – 4 different coloured base stains that can all be intermixed and even lightened if desired, the most gradual nuances in the colour of wood stains can be produced that are especially coordinated to the species of wood used.

All of the stains (with the exception of wax stains) can be coated with Remmers NC, 2-component PUR and Aqua varnishes without any difficulties.



## PREMIUM QUALITY FOR THE WOOD WORKING TRADE

### Remmers Varnishes in Top 3H Quality

Since January 1, 2009 the motto is: Together we are strong – Remmers and 3H-Lacke.

The merger with 3H-Lacke – a company with enormous know-how in the field of pioneering water based and UV varnishes – is a significant milestone for Remmers, allowing us to offer our customers in trade a unique, rapidly expanding and complex product portfolio based on the latest, state-of-the-art technologies.

Through this merger Remmers has gained a modern production site with research & development, colour science and application technology, advancing to become the leading manufacturer of high quality wood refinement products in Europe.

All of Remmers customers at home and abroad profit from this:

- A complete assortment of wood varnishes and stains
- Premium quality for the entire wood working trade
- Individual service, thanks to an area wide presence of specialists all over Europe.





## CRAFTSMEN AND EXPERTS BET ON REMMERS

Carpenters, Joiners and the Jury Awarded Remmers the Prize for Service

Within the scope of the international Forest and Wood Industry trade fair LIGNA in May 2009, carpenters, joiners and the jury – consisting of specialists from the branch – selected Remmers as the winner of the Service Prize tendered for the first time by the German Association of Wood and Plastics (BHKH) and the German Messe AG.

With the words “The winner is Remmers and their service is simply the best for carpenters and joiners!”, the jury selected the company from Löningen as the winner of this coveted prize. Remmers products, which are oriented to the needs of carpenters and joiners in practice, were praised as well as the professional and social engagement of Remmers employees and their excellent technical support.

### Our competence:

- A sophisticated, complete assortment of wood varnishes, stains and coatings for windows
- Innovative products adapted to the needs of carpenters and joiners in practice
- Area-wide, on-site support through special representatives and application technicians
- Provision of product training courses and advanced training for employees
- Fast delivery times through central as well as decentral distribution warehouses/service centres.





## HIGHLY FLEXIBLE TINTING OF COLOR VARNISHES

### On-Site Solutions for 2-Component PUR & Aqua Varnishes

If desired, Remmers offers its customers the possibility of tinting Color Varnishes on site in a highly flexible manner.

This allows us to react extremely quickly to customer wishes: The shade of colour can be immediately selected from a continuously growing formula data base and produced without delivery time.

Mixing systems are available for the following systems:

#### PUR CL-240/30 Color Varnish

##### Mixing principle:

- Mixing shelf with base varnishes for manual tinting by weighing

##### Performance spectrum:

- Extensive data base with thousands of shades of colours in the RAL and NCS range as well as Remmers colour collections
- EDP supported correction function
- Very precise metering, even for small quantities
- If desired: Variation of the degree of gloss can be achieved by adding MM-823 Matting Agent
- Texture varnishes can also be produced by adding SM-820 Texturing Agent

#### Aqua CL-440/30 Color Varnish

##### Mixing principle:

- Fully automatic, efficient metering system based on pigment pastes and base materials
- EDP-supported

##### Performance spectrum:

- Very precise metering
- Production of texture varnishes by adding SM-820 Texturing Agent
- Many other products from the Remmers product portfolio can also be tinted: stains, window coatings, facade paints, etc.





Are you interested in our tinting systems? Ask the Remmers representative near you! He'll be glad to take care of everything else and make you an offer without any obligation!

# Solvent Based, Clear Varnishes



# SOLVENT BASED, CLEAR VARNISHES

## Properties & Options for Using at a Glance

	Products	Options for use	Typical elements	Special properties	Resistance to chemicals according to DIN 68861 part 1	Working time
Parquet varnishes	PL-113	Single component	Parquet laid on site and for coating stairs	Very good emphasis, good resistance, Deco Paint-compliant	clearly exceeds 1C	-
Primers	PUR FG-201	2-comp.	Particularly beneath matt and high gloss varnishes; interior finishing in ships	Lightfast, dries quickly, high transparency, DIN 4102 B1 (flame resistant), an application has been made for IMO certification	-	8 h
	PUR AG-200	2-comp.	For light and bleached wood to maintain the natural character of the wood	Lightfast, little emphasis; does not hide the substrate	-	8 h
Finishes	NC SL-111	Single component	For wood surfaces subjected to normal loads	Dries very quickly, good emphasis, low cost	1C	-
	Acryl VSL-115	Single component/2-comp.	All-round varnish, very economical, for open-pored varnishing; also as a topcoat on opaque (white) varnished surfaces	Lightfast, can be worked single component as well as 2-component, resistant to PVC plasticizers even single component, economical, very fast drying	single component: 1C 2-component: 1B	24 h
	PUR SL-210	2-comp.	Finish for open-pored varnishing; also as a topcoat on opaque (white) varnished surfaces	Lightfast, tested according to DIN 4102 B1 (flame resistant), an application has been made for IMO certification	1B	8 h
	PUR SL-214	2-comp.	Finish for open-pored varnishing; also as a topcoat on opaque (white) varnished surfaces	Lightfast, very fast drying and long pot-life	1B	24 h
	PUR SL-212	2-comp.	For closed-pore varnishing; also as a topcoat on opaque (white) varnished surfaces; table tops, kitchen counter tops	Lightfast, high build and efficient because of high solid content, very high mechanical resistance	1B	8 h
	PUR BML-215/10	2-comp.	For very matt, natural looking surfaces that look and feel like natural wood	Lightfast, does not hide dark surfaces, mechanical loads do not cause glossy areas	1B	24 h
	PUR TL-222	2-comp.	Stairs	Lightfast, Deco Paint-compliant, 2-component PUR varnish	1B	16 h
	Topcoats	PUR HL-211/90	2-comp.	To achieve high gloss surfaces with a high quality look; for opaque varnished surfaces (PUR CL-240/30); interior finishing in ships	Lightfast, tested according to DIN 4102 B1 (flame resistant), can be polished; an application has been made for IMO certification	1B



## PL-113 PARQUET VARNISH

### Abrasion Resistant Parquet & Wood Floor Varnish

#### Properties

Sealing varnish based on high quality, urethane modified, alkyd resin that can be rolled, brushed or sprayed.

- Extremely abrasion and scratch resistant
- PVC-resistant
- Low odour solvent
- Unproblematic to apply
- Excellent emphasis of the grain
- Product complies with the Deco Paint Directive (2010)

#### Application

- For abrasion resistant varnishing of parquet and wood floors
- Decorative coating for stairs, parquet and furniture

#### Test standards:

- DIN EN 71-3  
Safety for toys
- DIN 53160 parts 1 and 2  
Saliva and sweat resistant
- DIN 68861 part 1, 1B  
Resistant to chemicals

#### Product data

Shade of colour	Clear
Art No.	2377 (semi-matt/30) 2378 (silk gloss/50) 2392 special colours (semi-matt/30)
Size of container	5 l
Thinning	The product is formulated ready to use
Application rate per working operation	approx. 80–100 ml/m <sup>2</sup>
Application	Brush Roller (polyamide yarn), roller with 6 mm pile in 3 layers Spraying (cup gun 1.8-2.0 mm)
Drying at 20°C, 65% relative humidity	
Dust dry after	approx. 1 hour
Can be sanded and re-varnished after	approx. 6 hours
Foot traffic after	approx. 24 hours



## PUR FG-201 FILLING PRIMER

Clear, 2-Component, Spray-On Filler for Semi-Closed to Closed-Pore Elements

### Product data

Shade of color	Clear
Art. No.	1950
Container sizes	10 l, 20 l
Mixing ratio with PUR H-280 Hardener	10:1
Thinning	If required with V-890 Thinner (p. 42)
Working time	1 work day
Application rate per working operation	approx. 100–150 ml/m <sup>2</sup>
Application	Spraying

	Cup gun	Airless	Airmix
Nozzle [mm]	1.8–2.0	0.23–0.28	0.23–0.28
Air pressure	2–3 bar	–	1.2–2.0 bar
Material pressure	–	80–120 bar	80–100 bar

Drying at 20°C, 65% relative humidity

Dust dry after	approx. 15 min.
Touch dry after	approx. 45 min.
Can be sanded and re-coated after	approx. 90 min.
Stacking after	approx. 2 hours

### Properties

Clear, 2-component spray-on filler with excellent drying properties.

- Dries very quickly and can be sanded very quickly
- Very good build; improved compensation of unevenness on the surface
- Lightfast, the varnish film does not change its inherent colour in falling light
- Aromatic hydrocarbon-free

### Application

For all semi-closed and closed-pore constructions as well as for preparing high gloss surfaces. Can also be used on bleached wood.

For high quality furniture such as:

- Chairs
- Office furniture
- Bathroom furnishings
- Kitchen cabinets

#### Test standards:

- DIN 4102-B1  
Flame resistance (application submitted)
- Flame resistance according to IMO Resolution for Interior Finishing of Ships (application submitted)
- DIN EN 71-3  
Safety for toys
- DIN 53160 parts 1 and 2  
Resistant to saliva and sweat



# PUR AG-200 LIGHTENING PRIMER

## 2-Component Primer to Achieve Natural Wood Effects

### Properties

Clear, 2-component primer with a lightening effect.

- Special binder, little emphasis of the surface, does not hide the texture of the wood
- Very good resistance against a number of household chemicals
- Efficient working through early, good sanding behaviour

### Application

For high quality furniture made of light and bleached wood.

For high quality furniture such as:

- Chairs
- Office furniture
- Bathroom furnishings
- Kitchen cabinets
- For treatment of dark wood on dark wood or dark stained wood, we recommend PUR-BML-215/10.

### Test standards:

- DIN EN 71-3  
Safety for toys
- DIN 53160 parts 1 and 2  
Resistant to saliva and sweat

### Product data

Shade of colour	Clear
Art. No.	1957 (dull matt/10)
Container sizes	10 l, 20 l
Mixing ratio with PUR H-280 Hardener	10:1
Thinning	If required with V-890 Thinner (p. 42)
Working time	1 work day
Application rate per working operation	approx. 80–120 ml/m <sup>2</sup>
Application	Spraying

	Cup gun	Airless	Airmix
Nozzle [mm]	1.8–2.0	0.23–0.28	0.23–0.28
Air pressure	2–3 bar	–	1.2–2.0 bar
Material pressure	–	80–120 bar	80–100 bar

Drying at 20°C, 65% relative humidity

Dust dry after	approx. 15 min.
Touch dry after	approx. 40–50 min.
Can be sanded and re-coated after	approx. 90 min.
Stacked after	approx. 2 hours

# SUGGESTION FOR WORKING

## Natural Oak Effect with 2-Component PUR Varnishes

### Suitable species of wood

**Note:** Not suitable for dark species of wood

Oak with uniform grading, for other light-coloured and bleached species of wood, trial varnishing is necessary. Solid wood might need to be moistened in advance!

### Sanding

150 – 180 grit, remove dust afterward

### Priming

**Note:** Prime twice if necessary

#### PUR AG-200 Lightening Primer, mixing ratio 10:1 with PUR H-280 Hardener

Application rate approx. 80–120 ml/m<sup>2</sup>, allow to dry overnight at room temperature to develop the best possible lightening effect!

Spray with a cup gun  
nozzle: 1.8 mm,  
air pressure: 2–3 bar

Spray with airless / airmix  
nozzle: 0.23–0.28 mm  
material pressure: approx. 100 bar  
air pressure: 1.2–2 bar

### Intermediate sanding

220–280 grit, try not to sand through

### Finishing

**Note:** To ensure that the hardener is properly stirred in and mixed, we recommend the use of the Remmers Patent Disperser (see page 93).

#### PUR SL-210/20 Finish matt, mixing ratio 10:1 with PUR H-280 Hardener

Application rate approx. 80–120 ml/m<sup>2</sup>,  
drying time at least 3 hours at room temperature, better overnight

Spray with a cup gun  
nozzle: 1.8 mm  
air pressure: 2–3 bar

Spray with airless / airmix  
nozzle: 0.23–0.28 mm  
material pressure approx. 100 bar  
air pressure: 1.2–2 bar

#### Optimum Drying Conditions

- 20°C room temperature, at least 50% relative humidity and a sufficient air exchange rate
- Lower temperatures may impair film formation on the surface.
- Humidity that is too low may initially dry the film of varnish too quickly; insufficient air exchange rate delays initial and thorough drying.



## NC SL-111 FINISH

### Clear Finish for Wood Surfaces Subjected to Normal Loads

#### Properties

Formaldehyde-free, clear finish for wood surfaces subjected to normal loads.

- Dries quickly, good sanding properties
- Very good flow, the texture and inherent colour of the surface of the wood are emphasised
- Resistant to a number of household chemicals
- High solid content (approx. 24%), very good build and smoothness

#### Application

- For wood home furniture surfaces subjected to normal loads

#### Test standards:

- DIN EN 71-3  
Safety for toys
- DIN 53160 parts 1 and 2  
Resistant to saliva and sweat
- DIN 68861 part 1, 1C  
Resistant to chemicals

#### Product data

Colour	clear		
Art. No.	1952 (silk gloss/50) 1953 (semi-matt/30) 1954 (matt/20)		
Size of containers	10 l, 20 l		
Thinning	if required with V-890 Thinner (p. 42)		
Retarder	if required with V-893 Retarder (p. 43)		
Application rate per coat	approx. 120 ml/m <sup>2</sup>		
Application	spraying, curtain coating		
	Cup gun	Airless	Airmix
Nozzle [mm]	1.8	0.18–0.23	0.18–0.23
Air pressure	2–3 bar	–	1.2–2.0 bar
Material pressure	–	80–120 bar	80–100 bar
<b>Drying at 20°C, 65% relative humidity</b>			
Dust dry after	approx. 10–15 min.		
Touch dry after	approx. 20–30 min.		
Can be sanded and re-coated after	approx. 45–60 min.		
Stacked after	approx. 90–120 min.		







## Acrylic VSL-115 VARIO FINISH

Solvent Based, Lightfast, Acrylic Varnish for Universal Use

### Properties

- Very fast drying, clear, solvent based, PVC resistant, single component, acrylic varnish
- Extremely lightfast and non-yellowing which makes it particularly suitable as a topcoat for white varnished substrates compared to NC varnishes
- Resistance to chemicals and water is clearly improved by adding 5% PUR H-280 Hardener (resistance similar to 2-component PUR varnish)

### Application

- For universal use in furniture construction
- For living and bedroom furniture, chairs and shelves
- For open-pored wood varnishing in interior areas
- As a topcoat for white varnished substrates

### Test standards:

- DIN EN 71-3  
Safety for toys
- DIN 53160 parts 1 and 2  
Resistant to saliva and sweat
- Without a hardener:  
DIN 68861 Teil 1, 1C  
Resistant to chemicals
- With hardener:  
DIN 68861 part 1, 1B  
Resistant to chemicals with restrictions

### Product data

Colour	clear		
Art No.	3861 (matt/20) 3862 (semi-matt/30) 3863 (silk gloss/50)		
Size of container	10 l, 20 l		
Working time	approx. 24 hours*		
Pot-life	approx. 48 hours*		
Application rate per coat	approx. 80–100 ml/m <sup>2</sup>		
Application	spraying		
	Cup gun	Airless	Airmix
Nozzle [mm]	1.8	0.18–0.23	0.18–0.23
Air pressure	2–3 bar	–	1.2–2.0 bar
Material pressure	–	80–120 bar	80–100 bar
<b>Drying at 20°C, 65% relative humidity</b>			
Dust dry after	approx. 10–20 min.		
Touch dry after	approx. 30–40 min.		
Can be sanded and re-coated after	approx. 60–75 min.		
Stacked after	approx. 180 min.		

\* when worked with PUR H-280 Hardener

# A COMPARISON OF SINGLE AND 2-COMPONENT VARNISHES

## An Overview of Properties & Application Options

		Inexpensive finish Base: nitrocellulose	Acrylic VSL-115 Vario Finish Base: acrylate	High quality PUR finish Base: acrylate
		Single component	Single component	2-component mixing ratio with hardener 20:1
			2-component mixing ratio with hardener 10:1	
Costs	Varnish	● ● ○ ○ ○ ○	● ● ● ○ ○ ○	● ● ● ○ ○ ○
	Hardener	Not required	Not required	● ● ● ● ● ○
	Ready-to-use material	● ● ○ ○ ○ ○	● ● ● ○ ○ ○	● ● ● ● ● ○
	Loss approx. 10% (pot-life)	No loss	No loss	● ○ ○ ○ ○ ○
	Ready-to-use material after loss	● ● ○ ○ ○ ○	● ● ● ○ ○ ○	● ● ● ● ● ○
Varnish Properties	Lightfast	✗	✓	✓
	PVC resistant	conditionally	✓	✓
	Resistance to chemicals	DIN 68861, part 1, 1C	DIN 68861, part 1, 1C	DIN 68861, part 1, 1B with restrictions
	Resistance to ethanol (school grade)	4	3	2
	Scratch resistance (school grade)	4	3,5	3
	Drying time	approx. 45 – 60 min.	approx. 60 min.	approx. 90 – 120 min.
Application Areas	White varnished surfaces	✗	✓	✓
	Bleached wood	✗	✓	✓
	Kitchen & bath furniture	✗	✗	✓
	Interior finishing	✓	✓	✓
	Living and bedroom furniture, chairs and shelves	✓	✓	✓

● ○ ○ ○ ○ ○ low costs    ● ● ● ● ● ● high costs



## PUR SL-210 FINISH

### Flame Resistant, 2-Component Finish

#### Properties

High quality, 2-component PU varnish for open-pore to semi-open-pore varnishing of high quality wood elements.

- Dries quickly, good sanding behaviour
- Good flow properties
- Very good resistance to a number of household chemicals
- Lightfast, the varnish film does not change its inherent colour in falling light
- Flame resistant when combined with flame resistant surfaces, suitable e.g. for shop fitting and public buildings
- Aromatic hydrocarbon-free

#### Application

For all clear, open-pored to semi-open pore varnishing of furniture or as a topcoat on Color Varnishes.

For high quality furniture such as :

- Chairs
- Office furniture
- Bathroom furnishings
- Kitchen cabinets

#### Test standards:

- DIN 4102-B1  
Flame resistant
- Flame resistance according to IMO Resolution for finishing ship interiors (application submitted)
- DIN EN 71-3  
Safety for toys
- DIN 53160 parts 1 and 2  
Resistant to saliva and sweat
- DIN 68861 part 1, 1B  
Resistant to chemicals

#### Product data

Colour	clear		
Art No.	1962 (silk gloss/50) 1963 (semi-matt/30) 1964 (matt/20) 1960 (dull matt/10)		
Size of container	10 l, 20 l		
Mixing ratio with PUR H-280 Hardener	10:1		
Thinning	if required with V-890 Thinner (p. 42)		
Working time	1 work day		
Application rate per coat	approx. 80–120 ml/m <sup>2</sup>		
Application	spraying		
	Cup gun	Airless	Airmix
Nozzle [mm]	1.8	0.23–0.28	0.23–0.28
Air pressure	2–3 bar	–	1.2–2.0 bar
Material pressure	–	80–120 bar	80–100 bar
Drying at 20°C, 65% relative humidity			
Dust dry after	approx. 20–30 min.		
Touch dry after	approx. 40–50 min.		
Can be sanded and re-coated after	approx. 2 hours		
Stacked after	drying overnight		



## PUR SL-214 FINISH

Especially Fast Drying, 2-Component Finish with a Long Pot-Life

### Product data

Colour	clear		
Art. No.	1851 (silk gloss/50) 1850 (semi-matt/30) 1849 (matt/20) 1857 (dull matt/10)		
Size of containers	10 l, 20 l		
Mixing ratio with PUR H-280 Hardener	10:1		
Thinning	if required with V-890 Thinner (p. 42)		
Working time	approx. 24 hours		
Pot-life	approx. 48 hours		
Application rate per coat	approx. 120 ml/m <sup>2</sup>		
Application	spraying		
	Cup gun	Airless	Airmix
Nozzle [mm]	1.8	0.23–0.28	0.23–0.28
Air pressure	2–3 bar	–	1.2–2.0 bar
Material pressure	–	80–120 bar	80–100 bar
Drying at 20°C, 65% relative humidity			
Dust dry after	approx. 10 mn.		
Touch dry after	approx. 40 min.		
Can be sanded and re-coated after	approx. 90 min.		
Stacked after	drying overnight		

### Properties

High quality, 2-component PU varnish for open-pore to semi-open pore varnishing of high quality wood elements.

- Very fast drying and good sanding properties
- Increased working time and pot-life
- Good flow, the texture and pore marks on the surface of the wood are emphasised
- Very good resistance to a number of household chemicals
- Lightfast, the film of varnish does not change its inherent colour in falling light

### Application

For all clear open-pore to semi-open pore varnishing on furniture or as a topcoat on Color Varnishes

For high quality furniture such as:

- Chairs
- Office furniture
- Bathroom furnishings
- Kitchen cabinets

### Test standards:

- DIN EN 71-3  
Safety for toys
- DIN 53160 parts 1 and 2  
Resistant to saliva and sweat
- DIN 68861 part 1, 1B  
Resistance to chemicals



## PUR SL-212 FINISH

Very Scratch Resistant, 2-Component Finish for Closed-Pore Systems

### Properties

High quality, 2-component PU varnish for closed-pore varnishing of high grade species of wood.

- Very good stability on vertical edges
- Good flow
- Very good resistance to a number of household chemicals
- Lightfast, the varnish film does not change its inherent colour in falling light
- Very good scratch resistance, the surface is insensitive to heavier loads (e.g. desks)

### Application

For clear, closed-pore finishing of high quality furniture or as a topcoat on Color Varnishes subjected to heavy loads such as:

- Chairs
- Office furniture
- Bathroom furnishings
- Kitchen cabinets

### Test standards:

- DIN EN 71-3  
Safety for toys
- DIN 53160 parts 1 and 2  
Resistant to saliva and sweat
- DIN 68861 part 1, 1B  
Resistant to chemicals

### Artikeldaten

Colour	clear		
Art. No.	1970 (silk gloss/50) 1971 (semi-matt/30) 1972 (matt/20)		
Size of containers	10 l, 20 l		
Mixing ratio with PUR H-280-Hardener	10:1		
Thinning	if required with V-890 Thinner (p. 42)		
Retarder	if required with V-893 Retarder (p. 43)		
Working time	1 work day		
Application rate per coat	approx. 120 – 150 ml/m <sup>2</sup>		
Application	spraying, pouring		
	Cup gun	Airless	Airmix
Nozzle [mm]	1.8–2.0	0.23–0.28	0.23–0.28
Air pressure	2–3 bar	–	1.2–2.0 bar
Material pressure	–	80–120 bar	80–100 bar
<b>Drying at 20°C, 65% relative humidity</b>			
Dust dry after	approx. 30–40 min.		
Touch dry after	approx. 60 min.		
Can be sanded and re-coated after	approx. 2 hours		
Stacked after	drying overnight		

# SUGGESTIONS FOR WORKING

## Clear Finishing with 2-Component PUR Varnishes

<b>Suitable species of wood</b>	<b>Closed-pore</b> Beech, maple, pine ..., various species of tropical wood (test system in advance)	<b>Open-pore</b> Oak, ash, walnut..., various species of tropical wood (test system in advance)
<b>Sanding</b>	180 – 220 grit, remove dust afterward	
<b>Staining (if applicable)</b>	<b>Aqua KB-004 Compact Stain in the desired colour</b> Spray with cup gun, 1.3–1.5 mm nozzle, air pressure 2–3 bar, dry for 2–3 hours at room temperature	
<b>Priming</b>	<b>PUR SL-212 Finish, mixing ratio 10:1 with PUR H-280 Hardener</b> Application rate approx. 120–150 ml/m <sup>2</sup> , dry for 2–3 hours at room temperature	<b>PUR SL-210 Finish*, mixing ratio 10:1 with PUR H-280 Hardener</b> diluted with 10 – 20% V-890 Thinner, applica- tion rate approx. 100–120 ml/m <sup>2</sup> , dry for 2– 3 hours at room temperature
<b>Note:</b> Prime twice if necessary. <b>Open-pore varnishing:</b> Open pores should be varnished with diluted material to achieve elegant looking pore marks. This also ensures that deep pores are sealed off from liquids (water, red wine, tea, etc.).	Spray with cup gun, 1.8 mm nozzle, air pressure 2–3 bar or spray with airless / airmix, 0.28 mm nozzle, material pressure approx. 100 bar, air pressure 1.2–2 bar	
<b>Intermediate sanding</b>	220 –280 grit, remove dust thoroughly afterward (dust binding cloth)	
<b>Finishing</b>	<b>PUR SL-212 Finish, mixing ratio 10:1 with PUR H-280 Hardener</b> Application rate approx. 120–150 ml/m <sup>2</sup> , dry for 2–3 hours at room temperature	<b>PUR SL-210 Finish*, mixing ratio 10:1 with PUR H-280 Hardener,</b> Application rate approx. 100–120 ml/m <sup>2</sup> , dry for at least 3 hours at room temperature, best over night
<b>Note:</b> Highly absorbent species of wood may need to be primed twice to achieve the desired build. Trial varnishing in advance is recommended in general. To ensure that the hardener is thoroughly stirred and worked into the varnish, we recommend the use of the Remmers Patent Disperser (see page 93).	Spray with cup gun, 1.8 mm nozzle, air pressure 2–3 bar or spray with airless / airmix, 0.28 mm nozzle, material pressure max. 100 bar, air pressure 1.2–2 bar	

\* To achieve even faster drying times, PUR SL-214 can also be used instead of PUR SL-210.

### Optimum drying conditions

- 20°C room temperature, at least 50% rel. humidity and a sufficient air exchange rate
- Room temperatures that are too low can impair the formation of a film on the surface.
- If relative humidity is too low, the varnish film may initially dry too quickly; an insufficient air exchange rate delays initial and thorough drying.



## PUR BML-215/10 BRILLIANT MATT VARNISH

Highest Quality, 2-Component PUR Varnish for a Raw Wood Effect – Also on Dark Wood

### Properties

PUR BML-215/10 Brilliant Matt Varnish was especially developed to achieve a very natural looking wood surface. This product thus consequently meets the wishes of many consumers for exclusive furnishings with very hard wearing surfaces that do not look or feel varnished (raw wood effect).

- Dull matt yet highly transparent
- Very velvety feeling
- Insensitive to scratches and can be polished
- Highly resistant to household chemicals
- Dries quickly, fast release of solvents and fast full cure

### Application

- For high quality furniture in living areas, kitchens and baths
- As a primer and topcoat for all species of wood
- For dark wood, dark stained wood (e.g. Mocca + dull matt) or Color varnishes

### Test standards:

- DIN EN 71-3  
Safety for toys
- DIN 53160 parts 1 and 2  
Resistant to saliva and sweat
- DIN 68861 part 1, 1B  
Resistant to chemicals

### Product data

Colour	clear
Art. No.	1941 (dull matt/10)
Size of container	10 l
Mixing ratio with PUR H-280-Hardener	10:1
Thinning	if required with V-890 Thinner (p. 42)
Retarder	if required with V-893 Retarder (p. 43)
Working time	24 hours
Pot-life	48 hours
Application rate per coat	120 ml/m <sup>2</sup>
Application	spraying, curtain coating

	Cup gun	Airless	Airmix
Nozzle [mm]	1.8	0.23–0.28	0.23–0.28
Air pressure	2–3 bar	–	1.2–2.0 bar
Material pressure	–	80–120 bar	80–100 bar

Drying at 20°C, 65% relative humidity

Dust dry after	approx. 10 min.
Touch dry after	approx. 40 min.
Can be sanded and re-coated after	approx. 90 min.
Stacked after	drying overnight



# SUGGESTIONS FOR WORKING

## Raw Wood Effect on Walnut

<b>Suitable species of wood</b>	All species of wood, also dark wood and dark stained wood	
<b>Sanding</b>	150 – 180 grit, remove dust thoroughly afterward	
<b>Priming</b>	<b>PUR BML-215/10 Brilliant Matt Varnish, mixing ratio 10:1 with PUR H-280 Hardener</b> Application rate 120 ml/m <sup>2</sup> , dry for 90 minutes at room temperature	
<b>Note:</b> To ensure that the hardener is stirred and worked in thoroughly, we recommend the use of the Remmers Patent Disperser (see page 93).	Spray with cup gun, 1.8 mm nozzle, air pressure 2–3 bar	Spray with airless / airmix 0.28 mm nozzle, material pressure max. 100 bar, air pressure 1.2–2 bar
<b>Intermediate sanding</b>	200 – 280 grit, remove dust thoroughly afterward	
<b>Finishing</b>	<b>PUR BML-215/10 Brilliant Matt Varnish, mixing ratio 10:1 with PUR H-280 Hardener</b> Application rate approx. 120 ml/m <sup>2</sup> , dry for at least 3 hours at room temperature, best overnight	
	Spray with cup gun 1.8 mm nozzle, air pressure 2–3 bar	Spray with airless / airmix 0.28 mm nozzle, material pressure max. 100 bar, air pressure 1.2–2 bar
	<b>Optimum drying conditions</b> <ul style="list-style-type: none"><li>■ 20°C room temperature, at least 50% rel. humidity and a sufficient air exchange rate</li><li>■ Room temperatures that are too low may impair film formation on the surface</li><li>■ Relative humidity that is too low can cause the varnish film to initially dry too quickly; an insufficient air exchange rate delays initial drying and full cure.</li></ul>	



## PUR TL-222 STAIR VARNISH

### 2-Component, Solvent Based, Hybrid Varnish for the Heaviest Loads

Because of the Deco Paint Directive, solvent based PUR varnishes have been practically (at least officially) banned from stair construction.

So far, Deco Paint-compliant variations in this area were only possible by clearly increasing the solid content from just under 30% to more than 55% which had many disadvantages such as:

- Pot-life is clearly reduced – some times even under 4 hours
- Drying is considerably delayed: it takes at least 1/2 a work day before the substrate can be sanded
- Since a larger quantity of hardener is required, the products are much less economical
- Because of the high solid content, surfaces look unnatural (a “plastic-look”)

#### The Solution – Hybrid Varnish

PUR TL-222 Stair Varnish is completely different. PUR TL-222 Stair Varnish is a so-called hybrid varnish in which a part of the VOC content has not been replaced by a binder/solid. Through a unique technology, a part of the solvents that contain VOC have been replaced with special, VOC-free solvents.

#### Former 2-component PUR stair varnish before 2007



- + Fast drying
- + Good flow properties
- + Attractive emphasis of grain
- + Very good resistance
- + Economical mixing ratio “varnish : hardener” (10:1)
- Not compliant with the Deco Paint Directive
- May no longer be used for varnishing stairs because of the high VOC content

#### Today's conventional, 2-component, PUR “high solid” stair varnishes



- + Deco Paint Directive-compliant
- + Attractive emphasis of grain
- + Very good resistance
- Higher price of the varnish because of high solid content
- Mixing ratio of “varnish: hardener” is not economical (often 2:1)
- Short working time & pot-life
- Dries slowly
- Surfaces have a plastic-look because of the high solid content

#### PUR TL-222 Stair Varnish “Hybrid varnish system”



- + Deco Paint Directive-compliant
- + Good flow properties
- + Attractive emphasis of grain
- + Very good resistance
- + Economical mixing ratio of “varnish:hardener” (10:1)
- + Pot-life & working time appropriate for use in practice

**Deco Paint-compliant  
Stage II / 2010 thanks to  
HYBRID VARNISH TECHNOLOGY!**

## Properties

- Full quality, solvent based, 2-component PUR varnish for stairs
- Deco Paint-compliant
- Solid content in the ideal range (approx. 30 %)
- Natural looking surfaces and an elegant flow
- Very economical: mixing ratio with PUR H-280 Hardener: 10:1
- Long working time (8 hours) and pot-life (16 hours)
- PUR TL-222 Stair Varnish is highly resistant just like PUR varnishes in general
- PUR TL-222 Stair Varnish is milky immediately after application but dries clear

## Application

- Solvent based stair varnish – ideal for users that want to use a solvent based varnish system that complies with the law
- For semi-open to closed-pore varnishing
- Also for other high grade of wood in interior areas

### Test standards:

- DIN EN 71-3 Safety for toys
- DIN 53160 parts 1 and 2 Resistant to saliva and sweat
- DIN 68861 part 1, 1B Resistant to chemicals

## Product data

Colour	clear	
Art. No.	1821 (semi-matt/30) 1822 (silk gloss/50)	
Size of container	10 l, 20 l	
Mixing ratio with PUR-H-280 Hardener	10 : 1	
Thinning	product is formulated ready to use	
Working time	8 hours	
Pot-life	16 hours	
Application rate per coat	approx. 100–125 ml/m <sup>2</sup>	
Application	spraying	
	Cup gun	Airmix
Nozzle [mm]	1.8–2.0	0.23–0.28
Air pressure	2–3 bar	0.8–1.3 bar
Material pressure	–	80–100 bar
Drying at 20°C, 65% relative humidity		
Dust dry after	approx. 30 min.	
Can be sanded and re-coated after	approx. 2 hours	
Stacked after	drying overnight	

# SUGGESTION FOR WORKING

## Varnishing Stairs with Remmers PUR TL-222 Stair Varnish

<b>Suitable species of wood</b>	Beech, maple, oak..., various species of tropical wood (test the system in advance)		
<b>Sanding</b>	180 – 220 grit, remove dust afterward		
<b>Staining (if applicable)</b>	<b>Aqua KB-004 Compact Stain in the desired shade of colour</b> Spray with a cup gun, 1.3–1.5 mm nozzle, air pressure 2–3 bar, dry for at least 3 hours at room temperature		
<b>Priming</b>	<b>PUR TL-222 Stair Varnish, mixing ratio 10:1 with PUR H-280 Hardener</b> Application rate approx. 100–125 ml/m <sup>2</sup> , pot-life 1 work day, dry for at least 2 hours at room temperature  <table><tr><td>Spray with a cup gun 1.8 mm nozzle, air pressure 2–3 bar</td><td>Spray with airless / airmix 0.28 mm nozzle, material pressure max. 100 bar, air pressure 0.8–1.3 bar</td></tr></table>	Spray with a cup gun 1.8 mm nozzle, air pressure 2–3 bar	Spray with airless / airmix 0.28 mm nozzle, material pressure max. 100 bar, air pressure 0.8–1.3 bar
Spray with a cup gun 1.8 mm nozzle, air pressure 2–3 bar	Spray with airless / airmix 0.28 mm nozzle, material pressure max. 100 bar, air pressure 0.8–1.3 bar		
	Prime a second time if required!		
<b>Intermediate sanding</b>	220 – 280 grit, remove dust thoroughly afterward (dust binding cloth)		
<b>Finishing</b>	<b>PUR TL-222 Stair Varnish, mixing ratio 10:1 with PUR H-280 Hardener</b> Application rate approx. 100–125 ml/m <sup>2</sup> , pot-life 1 work day, dry for at least 2 hours at room temperature, repeat the process if necessary!  <table><tr><td>Spray with a cup gun 1.8 mm nozzle, air pressure 2–3 bar</td><td>Spray with airless / airmix 0.23–0.28 mm nozzle, material pressure approx. 100 bar, air pressure 0.8–1.3 bar</td></tr></table>	Spray with a cup gun 1.8 mm nozzle, air pressure 2–3 bar	Spray with airless / airmix 0.23–0.28 mm nozzle, material pressure approx. 100 bar, air pressure 0.8–1.3 bar
Spray with a cup gun 1.8 mm nozzle, air pressure 2–3 bar	Spray with airless / airmix 0.23–0.28 mm nozzle, material pressure approx. 100 bar, air pressure 0.8–1.3 bar		

**Note:** Highly absorbent types of wood may need to be primed twice to achieve the desired build. Trial varnishing in advance is recommended in general.

**Note:** To ensure that the hardener is thoroughly stirred and worked into the varnish, we recommend the use of the Remmers Patent Disperser. Ask your Remmers representative for information!

### Optimum drying conditions

- 20°C room temperature, at least 50% rel. humidity and a sufficient air exchange rate
- Room temperatures that are too low may impair film formation on the surface.
- Relative humidity that is too low may cause initial drying of the varnish film that is too fast; an insufficient air exchange rate delays initial drying and full cure.





## PUR HL-211/90 HIGH GLOSS

### 2-Component Topcoat for High Gloss, Brilliant Furniture Surfaces

#### Properties

High quality, 2-component PU varnish that is extremely resistant.

- Used as a topcoat; stands out because of excellent flow
- Dries blemish-free
- Extremely hard and scratch resistant
- Excellent adhesion
- Outstanding elasticity
- The product is lightfast and does not change its inherent colour in falling light
- After drying the surface of the varnish can be polished/buffed
- High solid content

#### Application

Ideal as a topcoat in a system with PUR FG-201 Filling Primer for high quality furniture such as:

- Chairs
- Office furniture
- Bathroom furnishings
- Kitchen cabinets

#### Test standards:

- DIN 4102-B1  
Flame resistant (application submitted)
- Flame resistant according to IMO Resolution for interior finishing of ships (application submitted)
- DIN EN 71-3  
Safety for toys
- DIN 53160 parts 1 and 2  
Resistant to saliva and sweat
- DIN 68861 part 1, 1B  
Resistance to chemicals

#### Product data

Colour	clear		
Art. No.	1961		
Size of container	10 l		
Mixing ratio with PUR H-280-Hardener	5:1		
Thinning	if required with V-890 Thinner (p. 42)		
Retarder	if required with V-893 Retarder (p. 43)		
Working time	6 hours		
Application rate per coat	approx. 120–150 ml/m <sup>2</sup>		
Application	spraying, curtain coating		
	Cup gun	Airless	Airmix
Nozzle [mm]	1.8	0.23–0.28	0.23–0.28
Air pressure	2–3 bar	–	1.2–2.0 bar
Material pressure	–	80–120 bar	80–100 bar
Drying at 20°C, 65% relative humidity			
Dust dry after	ca. 20–30 min.		
Touch dry after	40–50 min.		
Can be sanded and re-coated after	60 min.		
Stacked after	drying overnight		
Polished after	approx. 3 days		

# SUGGESTIONS FOR WORKING

## High Gloss Varnishing with 2-Component PUR Varnishes

### Suitable species of wood

Cherry, mahogany, walnut..., various species of tropical wood (test system in advance)

### Sanding

180–220 grit, remove dust afterward

### Staining (if applicable)

#### Aqua KB-004 Compact Stain

Spray with a cup gun, 1.3–1.5 mm nozzle, air pressure 2–3 bar, dry for 2–3 hours at room temperature

### Priming

**Note:** To ensure that the hardener is thoroughly stirred and worked into the varnish, we recommend the use of the Remmers Patent Disperser (see page 93). If necessary, apply PUR-FG-201 Filling Primer several times, “wet-on-wet”.

#### PUR FG-201 Filling Primer, mixing ratio 10:1 with PUR H-280 Hardener if necessary thin the first coat with 20% V-890 Thinner

Application rate approx. 130–180 ml/m<sup>2</sup>, dry for 2–3 hours at room temperature

Spray with a cup gun  
1.8 mm nozzle,  
air pressure 2–3 bar

Spray with airless / airmix  
0.23–0.28 mm nozzle,  
material pressure approx. 100 bar,  
air pressure 1.2–2 bar

### Intermediate sanding

**Note:** After each varnishing step

400–600 grit, remove dust thoroughly afterward (dust binding cloth)

### Finishing

**Note:** When working on larger surfaces, we recommend the addition of approx. 5% V-893 Retarder to improve flow and achieve slower drying. When varnishing certain species of tropical wood, e.g. mahogany, applying several layers of strongly diluted varnish has proved advantageous so that very fine pores are closed. Highly absorbent species of wood, e.g. limba, may need to be primed more than once to achieve sufficient build. Please remember that the surroundings should be absolutely dust-free when working with this high gloss varnish. It is also helpful if the varnishing booth and varnishing equipment are thoroughly cleaned and if necessary, the floor should be wet down before varnishing. Trial varnishing in advance is always advisable.

#### PUR HL-211/90 High Gloss, mixing ratio 5:1 with PUR H-280 Hardener

Application rate approx. 120 ml/m<sup>2</sup>

Spray with a cup gun  
1.8 mm nozzle,  
air pressure 2–3 bar

Spray with airless / airmix  
0.23–0.28 mm nozzle,  
material pressure approx. 100 bar,  
air pressure 1.2–2 bar

The surfaces can be polished after approx. 3 days

#### Optimum drying conditions

- 20°C room temperature, at least 50% rel. humidity and a sufficient air exchange rate
- Lower room temperatures may impair film formation on the surface.
- Relative humidity that is too low may cause initial drying of the varnish film that is too fast; an insufficient air exchange rate delays initial drying and full cure.

Solvent Based, 2-Component Color Varnishes







## PUR PF-230 PIGMENT FILLER

2-Component Spray-On Filler/Sealing Filler for Coloured, Closed-Pore Surfaces

### Product data

Art. Nr./colour	1958 white 1959 black		
Size of containers	10 l, 20 l		
Mixing ratio with PUR H-280 Hardener (as a sealing filler)	10:1 (5:1)		
Thinning	if required with V-890 Thinner (p. 42)		
Working time	6 hours		
Application rate per coat	approx. 150 ml/m <sup>2</sup>		
Application	spraying		
	Cup gun	Airless	Airmix
Nozzle [mm]	2.0–2.5	0.33–0.38	0.33–0.38
Air pres- sure	2–3 bar	–	1.2–2.0 bar
Material pressure	–	80–120 bar	80–100 bar
Drying at 20°C, 65% relative humidity			
Dust dry after (as a sealing filler)	approx. 10 min. (approx. 45 min.)		
Touch dry after	–		
Can be sanded and re-coated after (as a sealing filler)	approx. 2 hours (approx. 5 hours)		
Stacked after	drying over night		

### Properties

Highly pigmented, spray-on filler with excellent drying properties and good build.

- Dries very quickly and can be sanded quickly: The complete coating system can be applied in one work day
- High stability for exceptional build
- Highly filled and pigmented for good hiding power and good sanding properties

### Variation:

By working with PUR H-280 Hardener in a mixing ratio of 5:1, PUR PF-230 Pigment Filler can be used as a sealing filler without prior clear sealing. In this case, please note that the drying time will be longer.

### Application

For priming all normal substrates found in the furniture area such as support films, hardboard, sealed MDF boards and solid wood.

For high quality furniture such as:

- Chairs
- Office furniture
- Bathroom furnishings
- Kitchen cabinets

### Test standards:

- DIN 4102-B1  
Flame resistance (application submitted)
- Flame resistance according to IMO Resolution for interior finishing of ships (application submitted)



# PUR CL-240/30 COLOR VARNISH

## 2-Component Color Varnish with High Loading Capacity

### Properties

Highly pigmented color varnish for brilliant colours.

- Good resistance to metal rings
- Resistant to hot water and water vapour
- Very good hiding power
- Good flow
- Good stability on vertical surfaces
- Insensitive to substances in the wood

### Test standards:

- DIN 4102-B1  
Flame resistant (application submitted)
- Flame resistant according to IMO for interior finishing of ships (application submitted)
- DIN EN 71-3  
Safety for toys
- DIN 68861 part 1, 1B  
Resistance to chemicals

### Application

For coloured decoration of all conventional substrates in the furniture industry such as sanded priming films, hardboard, sealed MDF boards and solid wood.

For high quality furniture such as:

- Chairs
- Office furniture
- Bathroom furnishings
- Kitchen cabinets

	Cup gun	Airless	Airmix
Nozzle [mm]	1.8	0.23–0.28	0.23–0.28
Air pressure	2–3 bar	–	1.2–2.0 bar
Material pressure	–	80–120 bar	80–100 bar
<b>Drying at 20°C, 65% relative humidity</b>			
Dust dry after	approx. 30–40 min.		
Touch dry after	approx. 60 min.		
Can be sanded and re-coated after	approx. 2 hours		
Stacked after	drying overnight		

### Product data

<b>Art. No./colour</b>	<b>Gloss: matt/20</b>
	1801 opaque special colours pc 1
	1802 opaque special colours pc2
	1803 opaque special colours pc3
	<b>Gloss: semi-matt/30</b>
	1995 staining special colours
	1996 staining special colours pc1
	1997 opaque special colours pc2
	1998 opaque special colours pc3
	1965 RAL 9010
1967 white	
<b>Size of container</b>	1 l, 2.5 l, 5 l, 10 l, 20 l
<b>Mixing ratio with PUR H-280 Hardener</b>	10:1
<b>Thinning</b>	if required with V-890 Thinner (p. 42)
<b>Working time</b>	1 work day
<b>Application rate per coat</b>	approx. 100–120 ml/m <sup>2</sup>
<b>Application</b>	spraying

# SUGGESTIONS FOR WORKING

## For Coloured Varnishing with PUR Products

<b>Suitable species of wood</b>	MDF, priming films, solid wood
<b>Sanding</b>	180 –220 grit, remove dust afterward
<b>Sealing (if required)</b> <b>Note:</b> Spray edge – surface – edge!	<b>PUR SL-210 Finish, mixing ratio 10:1 with PUR H-280 Hardener</b> Application rate approx. 100–120 ml/m <sup>2</sup> , dry for 2–3 hours at room temperature
	Spray with a cup gun 1.8 mm nozzle, air pressure 2–3 bar
	Spray with airless / airmix 0.23–0.28 mm nozzle, material pressure approx. 100 bar, air pressure 1.2–2 bar
<b>Filling</b> <b>Note:</b> Spray edge – surface – edge! Repeat the process if necessary!	<b>PUR PF-230 Pigment Filler, mixing ratio 10:1 with PUR H-280 Hardener,</b> Application rate approx. 120–150 ml/m <sup>2</sup> , dry for 2–3 hours at room temperature
	Spray with a cup gun 2–2.5 mm nozzle, air pressure 2–3 bar
	Spray with airless /airmix 0.33–0.38 mm nozzle, material pressure approx. 100 bar, air pressure 1.2–2 bar
<b>Intermediate sanding</b>	220 –280 grit, remove dust thoroughly afterward
<b>Colour varnishing</b>	<b>PUR CL-240/30 Color Varnish, mixing ratio 10:1 with PUR H-280 Hardener</b> Application rate approx. 100–120 ml/m <sup>2</sup> , dry for 2–3 hours
	Spray with a cup gun 1.8 mm nozzle, air pressure 2–3 bar
	Spray with airless / airmix 0.23–0.28 mm nozzle, material pressure approx. 100 bar, air pressure 1.2–2 bar
<b>Clear varnishing (if required)</b> <b>Note:</b> Trial varnishing in advance is generally advisable to check the colour and effect! Sealing is a necessity for elements that will be subjected to strong moisture and heat loads! Finishing with a clear varnish increases the resistance of the surface to metal rings and is recommended for heavy loads! The degree of gloss can be varied by clear varnishing. To ensure that the hardener is thoroughly stirred and worked into the varnish, we recommend the use of the Remmers Patent Disperser (see page 93).	<b>PUR SL-210 Finish in the desired degree of gloss, mixing ratio 10:1 with PUR H-280 Hardener</b> Application rate approx. 80–120 ml/m <sup>2</sup> , dry in 2–3 hours
	Spray with a cup gun 1.8 mm nozzle, air pressure 2–3 bar
	Spray with airless / airmix 0.23–0.28 mm nozzle, material pressure approx. 100 bar, air pressure 1.2–2 bar

### Optimum drying conditions

- 20°C room temperature, at least 50% rel. humidity and a sufficient air exchange rate
- Lower room temperatures may impair film formation on the surface.
- Relative humidity that is too low may cause initial drying of the varnish film that is too fast; an insufficient air exchange rate delays initial drying and full cure.



## PUR HCL-242/90 HIGH GLOSS COLOR VARNISH

Opaque, 2-Component Topcoat for High Gloss, Brilliant Furniture Surfaces

### Properties

High quality, opaque, high gloss, 2-component PU varnish.

- Good flow and excellent hiding power
- Dries quickly
- Extremely resistant to scratches and chemicals
- After sufficient drying, varnished surfaces can be polished

### Application

- Opaque, high gloss varnish for high quality furniture
- For kitchen cabinets and bathroom furnishings
- Ideal for surfaces that have been pre-treated with PUR PF-230 Pigment Filler

### Test standards:

- DIN 4102-B1  
Flame resistant (application submitted)
- Flame resistant according to IMO Resolution for interior finishing of ships (application submitted)
- DIN EN 71-3  
Safety for toys
- DIN 68861 part 1, 1B  
Resistance to chemicals

### Product data

<b>Art. No./colour</b>	3864 pure white (RAL 9010)		
The degree of gloss is high gloss/90 for all shades of colours	3865 deep black (RAL 9005)		
	3817 special colours upon request		
<b>Size of container</b>	10 l		
<b>Mixing ratio with PUR H-280-Hardener</b>	5:1		
<b>Thinning</b>	if required with V-890 Thinner (p. 42)		
<b>Working time</b>	4 – 6 hours		
<b>Application rate per coat</b>	approx. 70 – 100 ml/m <sup>2</sup>		
<b>Application</b>	spraying		
	<b>Cup gun</b>	<b>Airless</b>	<b>Airmix</b>
<b>Nozzle [mm]</b>	1.6 – 1.8	0.23	0.23
<b>Air pressure</b>	2 – 3 bar	–	1.2 bar
<b>Material pressure</b>	–	80 – 120 bar	80 – 100 bar
<b>Drying at 20°C, 65% relative humidity</b>			
<b>Dust dry after</b>	approx. 20 – 30 min.		
<b>Touch dry after</b>	> 60 min.		
<b>Can be sanded and re-coated after</b>	at least 6 hours		
<b>Stacked after</b>	drying over night		
<b>Polished after</b>	approx. 3 days		

# SUGGESTIONS FOR WORKING

## High Gloss Varnishing with PUR HCL-242/90

### Suitable species of wood

MDF, priming foil

### Sanding

180 –220 grit, remove dust afterward

### Sealing (if required)

#### PUR SL-210 Finish, mixing ratio 10:1 with PUR H-280 Hardener

**Note:** As an alternative, sealing can also be executed with PUR PF-230 Pigment Filler in a mixing ratio of 5:1 with PUR H-280 Hardener

Application rate approx. 100–120 ml/m<sup>2</sup>,  
dry for at least 3 hours at room temperature

Spray with a  
cup gun  
1.8 mm nozzle,  
air pressure 2–3 bar

Spray with airless / airmix  
0.28 mm nozzle,  
material pressure max. 100 bar  
air pressure 1.2–2 bar

### Filling

#### PUR PF-230 Pigment Filler, mixing ratio 10:1 with PUR H-280 Hardener,

**Note:** Spray edge – surface – edge! Repeat the process if necessary!

application rate approx. 120–150 ml/m<sup>2</sup>,  
dry at least 3 hours at room temperature, better over night

Spray with a  
cup gun  
2–2.5 mm nozzle,  
air pressure 2–3 bar

Spray with airless /airmix  
0.33–0.38 mm nozzle,  
material pressure approx. 100 bar,  
air pressure 1.2–2 bar

### Intermediate sanding

220 – 280 grit, remove dust thoroughly afterward

### High Gloss Color Varnish

#### PUR HCL-242/90 High Gloss Color Varnish, mix. ratio 5:1 with PUR H-280 Hardener

**Note:** If necessary, 5% PUR V-893 Retarder or 2% PUR BS-895 Accelerator can be added.

Application rate approx. 70–100 ml/m<sup>2</sup>, dust dry in approx. 20 min.,  
can be polished after approx. 3 days!

Spray with a  
cup gun  
1.4–1.6 mm nozzle,  
air pressure 2–3 bar

Spray with airless / airmix  
0.22 mm nozzle,  
material pressure max. 80 bar,  
air pressure 1.2 bar

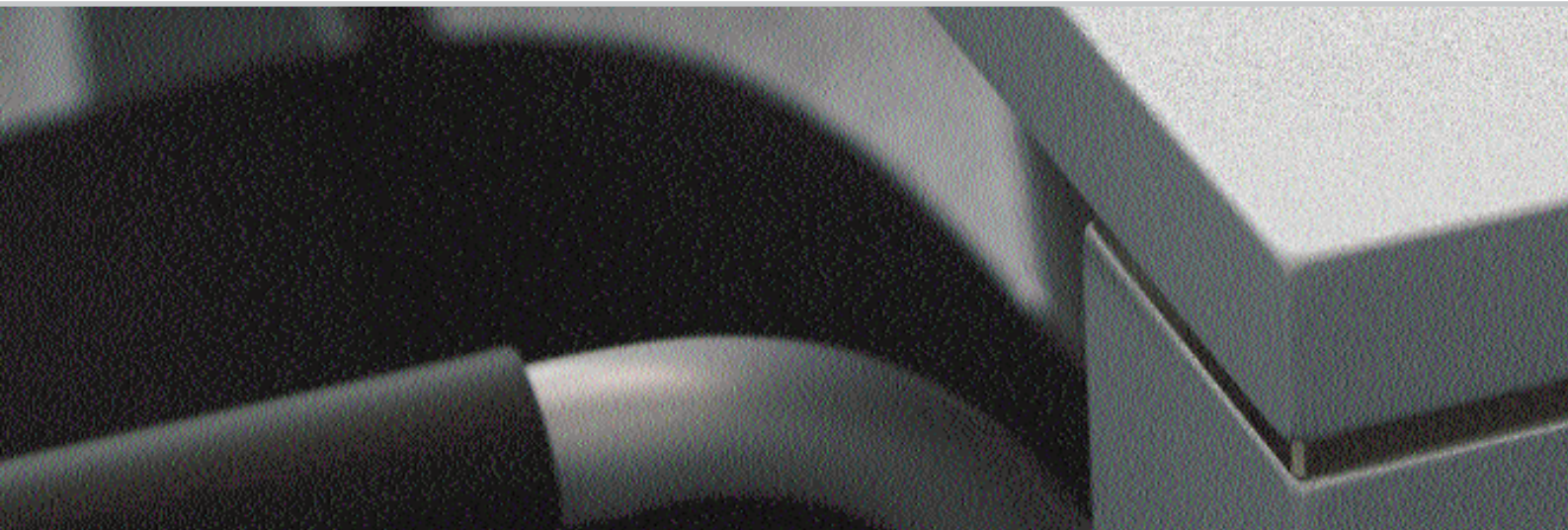
### Polishing

Sand with 800 – 1200 grit paper, wet sanding up to 2000 grit,  
polish with a polishing attachment using a suitable polishing paste

**Note:** When varnishing larger surfaces, the addition of approx. 5% V-893 Retarder is recommended to improve flow and achieve slower drying. Please remember that when applying high gloss varnishes it is essential that work is carried out in a dust-free environment. Thorough cleaning of the varnishing booth and varnishing equipment as well as wetting the floor are helpful measures. Trial varnishing in advance is advisable in general.

#### Optimum drying conditions

- 20°C room temperature, at least 50% rel. humidity and a sufficient air exchange rate
- Lower room temperatures may impair film formation on the surface.
- Relative humidity that is too low may cause initial drying of the varnish film that is too fast; an insufficient air exchange rate delays initial drying and full cure.



## PUR EL-241/30 GRANITE VARNISH

Opaque, 2-Component Effect Varnish for a Textured Metallic Effect

### Properties

Special, 2-component effect varnish. Because of its special pigmentation and texturing agent, it is suitable for producing surfaces with an exceptional appearance and feel.

- Contains special pigments and texturing agents
- Resistant to hot water and water vapour
- Very good hiding power
- Good flow
- Good stability on vertical surfaces
- Very good resistance to a number of household chemicals
- Varnished surfaces are extremely robust in regard to mechanical loads

### Application

For decorating all conventional substrates in the furniture industry such as sanded priming foils, hardboard, sealed MDF boards and solid wood.

For high quality furniture such as:

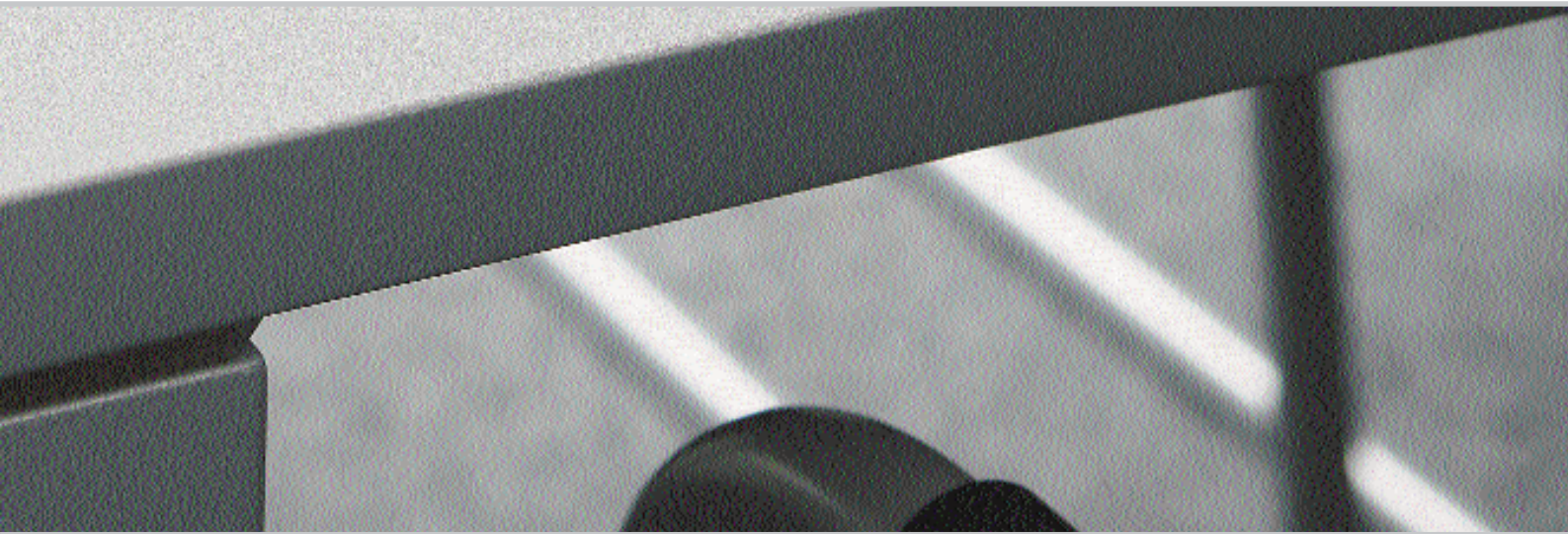
- Chairs
- Office furniture
- Bathroom furnishings
- Kitchen cabinets

#### Test standards:

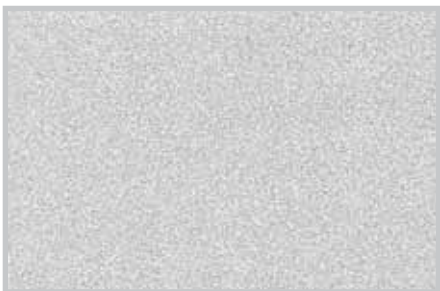
- DIN EN 71-3  
Safety for toys
- DIN 68861 part 1, 1B  
Resistant to chemicals

### Product data

Colour	accord.to colour collec.		
Art. No.	1969 (semi-matt/30)		
Size of containers	1 kg, 5 kg		
Mixing ratio with PUR H-280 Hardener	10:1		
Thinning	if required with V-890 Thinner (p. 42)		
Working time	1 work day		
Application rate per coat	approx. 120 ml/m <sup>2</sup>		
Application	spraying		
	Cup gun	Airless	Airmix
Nozzle [mm]	1.8–2.0	0.23–0.28	0.23–0.28
Air pressure	2–3 bar	–	1.2–2.0 bar
Material pressure	–	80–120 bar	80–100 bar
Drying at 20°C, 65% relative humidity			
Dust dry after	approx. 30–40 min.		
Touch dry after	approx. 60 min.		
Can be sanded and re-coated after	approx. 2 hours		
Stacked after	drying overnight		

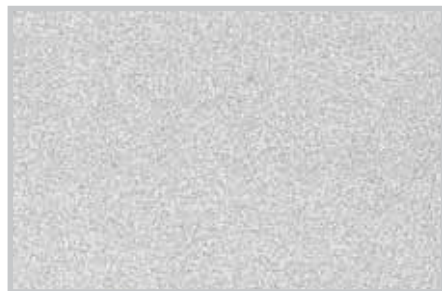


## Colour Collection



gold satin

Art. No. 1969-FT 19020



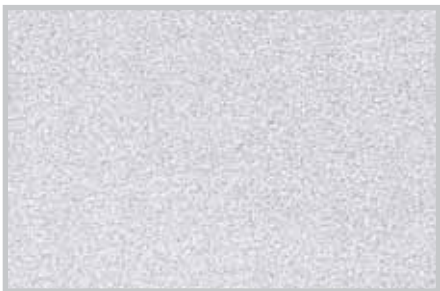
ochre metallic

Art.No. 1969-FT 19030



bronze metallic

Art.No. 1969-FT 19040



grey satin

Art.No. 1969-FT 19050



blue satin

Art.No. 1969-FT 19060



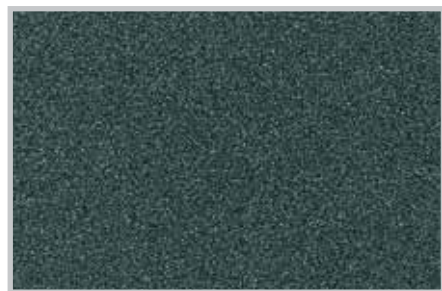
blue metallic

Art.No. 1969-FT 19070



violet metallic

Art.No. 1969-FT 19080



green metallic

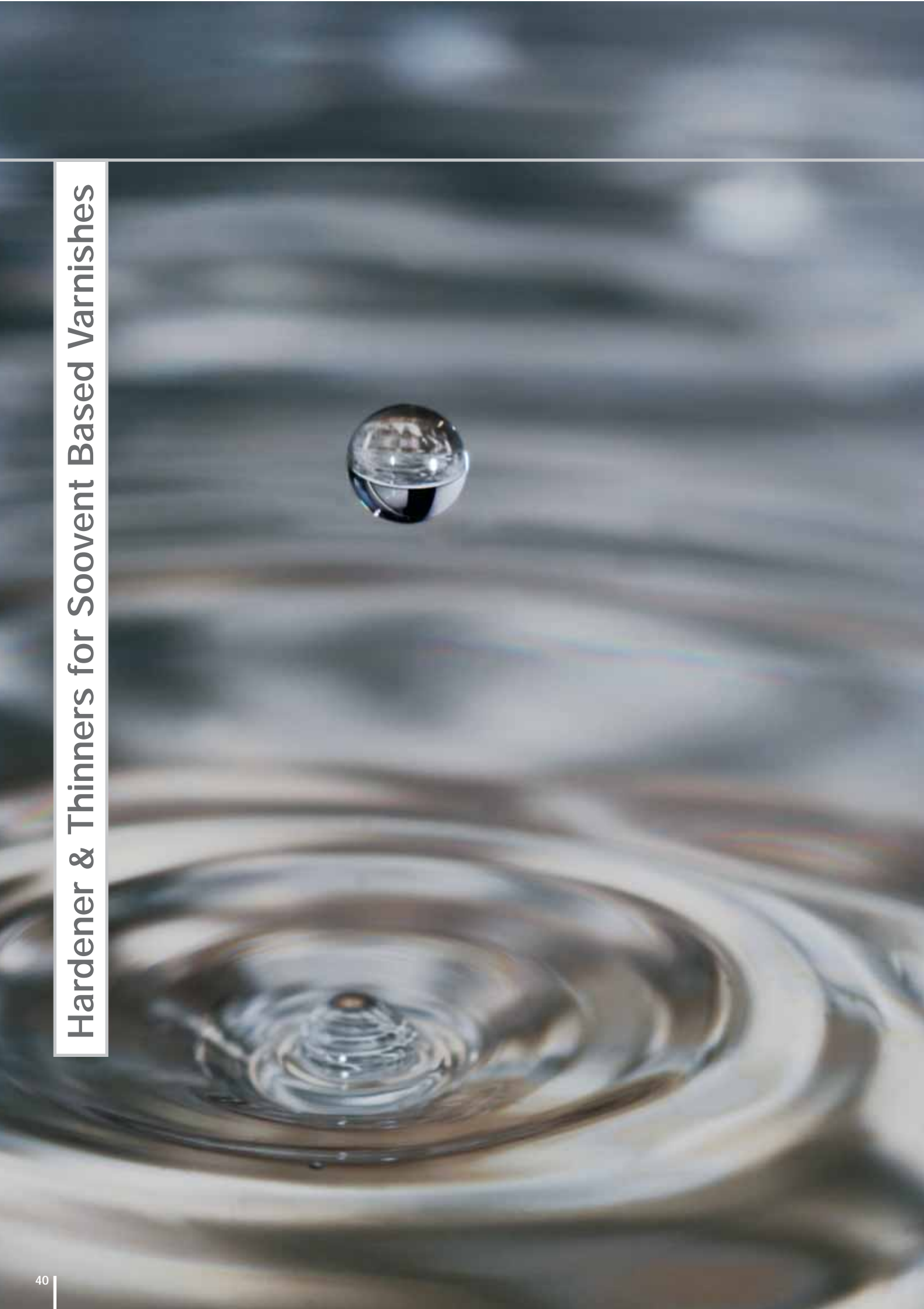
Art.No. 1969-FT 19090



black metallic

Art.No. 1969-FT 19100

# Hardener & Thinners for Solvent Based Varnishes





# COMBINATION POSSIBILITIES WITH PUR VARISHES

Using a Hardener, Thinners and Additives

Hardener / Thinners	Varnishes	Additive / Effects			
		PUR GLA-820 Glass Varnish Additive	SM-820 Texturing Agent	MM-823 Matting Agent	ULM-822 Universal Light Protector
PUR H-280 Hardener	Acryl VSL-115-Vario Finish	✗	✓	✓	✓
	PUR FG-201 Filling Primer	✗	✗	✗	✓
	PUR AG-200 Lightening Primer	✗	✗	✗	✓
	PUR SL-210 Finish	✓	✓	✓	✓
	PUR HL-211/90 High Gloss	✗	✗	✗	✓
	PUR SL-214 Finish	✓	✓	✓	✓
	PUR SL-212 Finish	✓	✓	✓	✓
	PUR PF-230 Pigment Filler	✗	✗	✗	✗
	PUR CL-240/30 Color Varnish	✓	✓	✓	✗
	PUR EL-241 Granite Varnish	✓	✗	✗	✗
V-890 Thinner WV-891 Brush Wash PUR BS-895 Accelerator V-893 Retarder	PUR HCL-242/90 High Gloss Color Varnish	✗	✗	✗	✗
	PUR TL-222 Stair Varnish	✗	✗	✗	✗
	PUR BML-215/10 Brilliant Matt Varnish	✗	✓	✗	✓

## PUR H-280 HARDENER

High Quality, Solvent Based, Isocyanate FOR ALL Remmers PUR Varnishes

### Product data

Colour	clear
Art .No.	1975
Size of containers	1 l, 2 l, 10 l
Application rate per working operation	Add to the varnish in the specified mixing ratio

### Properties

- Lightfast, the cured varnish film does not change its inherent colour in falling light
- Just one hardener component for all Remmers 2-component PUR varnishes
- Minimises sources of errors by selecting the wrong hardener
- Little risk of the hardener getting past the use-by date
- Resistant to bleaching agents
- Free of aromatic hydrocarbons

### Application

- For curing Remmers 2-component PUR varnishes and Acrylic VSL-115 in the specified mixing ratio

## V-890 THINNER

High Quality Universal Thinner

### Product data

Colour	clear
Art. Nr.	1955
Size of containers	10 l, 30 l
Application rate	according to needs

### Properties

- Just one thinner for all Remmers NC & 2-component PUR varnishes
- Minimises sources of errors and facilitates stockkeeping
- Free of aromatic hydrocarbons

### Application

- For thinning Remmers NC & 2-component PUR varnishes and for cleaning tools
- For adjusting solvent based stains for spraying without wiping

## WV-891 BRUSH WASH

Solvent

### Product data

Colour	clear
Art. No.	1948
Size of container	30 l
Application rate	according to needs

### Properties

- Inexpensive product
- Good cleaning results
- Free of aromatic hydrocarbons

### Application

- For cleaning tools after using Remmers NC & 2-component PUR varnishes
- Not suitable for thinning varnishes

# V-893 RETARDER

## Mixture of Special Solvents

### Properties

- Improves flow properties and slows initial drying when varnishing large surfaces (e.g. table tops)
- Prevents clouding of NC varnishes in high relative humidity
- For application of PUR varnishes by brush or roller

### Application

- For adjusting PUR SL, PUR HL, PUR HCL and NC SL varnishes
- For adjusting solvent based stains for spraying with wiping

### Product data

Colour	clear
Art. No.	1981
Size of container	1 l
Quantity required as a retarder	add approx. 2–5% to the mixed varnish/hardener
Quantity required as a retarder for brushing	add approx. 5–10% to the mixed varnish/hardener

# PUR BS-895 ACCELERATOR

## Catalyst for PUR Varnishes

### Properties

- To achieve faster drying time
- For lower working temperatures than specified in the Technical Data Sheets

### Application

- For all Remmers PUR varnishes
- Not suitable for PUR TL-222 Stair Varnish
- To achieve faster polishing time of PUR HL-211/90 and PUR HCL-242/90

### Product data

Colour	clear
Art. No.	1945
Size of container	1 l
Quantity require	max. 2% is added to the mixed varnish/hardener
Working time	drying time for PUR varnishes is reduced to approx. 6 hours

# MM-823 MATTING AGENT

## Matting Paste for 2-Component and Nitrocellulose Varnishes

### Properties

- Reduces the degree of gloss of the varnish by approx. 10 gloss units

### Application

- Matting paste for polyurethane and nitrocellulose varnishes to reduce the degree of gloss
- Not suitable for PUR TL-222 Stair Varnish
- Not suitable for matt varnishing systems

### Product data

Art. No.	3867
Size of container	1 l
Quantity required	add approx. 4% to the mixed varnish/hardener



## PUR GLA-820 GLASS VARNISH ADDITIVE

Additive for Improving the Adhesion of Remmers PUR Varnishes to Glass

### Properties

Glass is becoming more and more popular as a decorative element in furniture construction and shop fitting. PUR GLA-820 Glass Varnish Additive is a simple and inexpensive way to integrate glass into the decoration scheme.

- Special additive for 2-component PUR varnishes
- When mixed with the additive, the varnishes adhere to many types of glass
- Inexpensive alternative, also for small series
- Uncomplicated to use

### Application

- For coloured decoration of the back side of glass
- For furniture construction and shop fitting
- Can be used with many of the Remmers 2-component PUR varnishes (see page 41)

### Important Notes:

- Glass is not just glass. Carry out trial varnishing and check adhesion after corresponding drying time.
- Clean and de-grease panes of glass with V-890 Thinner. The pane of glass should be free of grease, dirt and dust.
- For example, mix PUR CL-240/30 in the desired shade of colour 10:1 with PUR H-280
- As an option, special effects can be achieved by adding SM-820 Texturing Agent (approx. 70 ml per litre ready-to-use varnish)
- Add 10% PUR GLA-820 Glass Varnish Additive to the mixed varnish/hardener and then work in thoroughly (e.g. with Remmers Patent Disperser)
- Spray 1 x with an application rate of approx. 100 – 120 ml/m<sup>2</sup>

### Product data

Colour	clear yellowish
Art. No.	1946
Size of container	0.5 l
Working time	reduced by approx. 50 % when PUR GLA-820 is added to PUR varnishes
Quantity required	10% of the mixed varnish/hardener

For examples of varnishing glass", see page 45

e.g. Milk glass effect  
PUR CL-240/30,  
Art. No. 1996 - FT 18430

e.g. glass varnishing effect  
opaque "aluminium blue"  
PUR CL-240/30,  
Art. No. 1997 - FT 18410

e.g. glass varnishing effect  
opaque "red"  
PUR CL-240/30,  
Art. No. - FT 18420

By adding SM-820 Texturing Agent, special effects concerning the appearance and feel of the varnish can be achieved on glass:

Sand blasted effect:  
PUR SL-210 Finish  
+ PUR H-280 Hardener (mixing ratio 10:1)  
+ PUR GLA-820 Glass Varnish Additive (approx. 10%)  
+ SM-820/L Texturing Agent coarse  
(approx. 70 ml per litre ready-to-use varnish)

Satin effect:  
PUR SL-210 Finish  
+ PUR H-280 Hardener (mixing ratio 10:1)  
+ PUR GLA-820 Glass Varnish Additive (approx. 10%)  
+ SM-820/S Texturing Agent fine  
(approx. 70 ml per litre ready-to-use varnish)

Etched effect:  
PUR SL-210 Finish  
+ PUR H-280 Hardener (mixing ratio 10:1)  
+ PUR GLA-820 Glass Varnish Additive (approx. 10%)  
+ SM-820/M Texturing Agent medium  
(approx. 70 ml per litre ready-to-use varnish)

Water Based, Clear Varnishes



# WATER BASED, CLEAR VARNISHES

## Properties and & Options for Working at a Glance

	Products	Options for working	Typical elements	Special properties	Resistance to chemicals accord. to DIN 68861 part 1	Working time
Parquet Varnishes & Primers	Aqua FKL-402	Single component	Parquet and wood floors: for filling joints	Low-odour; little volume shrinkage; single component mixed with saw dust for sanding	–	–
	Aqua MSV-403	Single component	For priming parquet & batten flooring; minimises glueing on sides	Low-odour; can be quickly sanded; minimises glueing on sides	–	–
	Aqua PL-413	Single comp./ 2-comp.	Parquet finished at the building site, batten flooring and for coating stairs	Exceptionally abrasion resistant, optimised for application with a roller	1B with restrictions	4 h
Primers	Aqua FG-401	Single comp./ 2-comp.	Universal	Highly transparent, particularly under matt and high gloss varnishes	–	4 h
	Aqua ANG-404	Single component	Universal	Good emphasis of the grain; after priming varnishing can be continued "wet-on-damp"	–	–
Finishes	Aqua SL-414	1K	Panels, moulding, shelves, simple furniture, interior finishing	Very fast drying, can be stacked, particularly for series production	1C	–
	Aqua SL-410	Single comp./ 2-comp.	Simple furniture, interior finishing	All-round finish with good transparency, fast drying	1C	4 h
	Aqua SL-415	Single comp./ 2-comp.	Doors, high quality furniture, entire interior finishing, hand rails (stairs)	Single component: Resistant to PVC-plasticizers & hand creams; very good emphasis of grain	1B (with the exception of alcohol)	4 h
	Aqua TL-412	Single comp./ 2-comp.	Stairs, counter tops, table tops	Very high build and efficient because of the high solid content; single component: very good resistance to abrasion and many handcreams	1B (with the exception of alcohol)	4 h
	Aqua UV SL-510	Single component	Universal	UV-cured for efficient production; very fast release of water before UV-curing; very high resistance to chemicals	1B	–
Topcoats	Aqua 2DS-450	2-component	Kitchen cabinets and counters, table tops, bathroom furnishings, high quality home furniture	Very high resistance to chemicals because of especially high cross-linking; good transparency	1B	3 h
	Aqua 2HL-411/90	2-component	Kitchen & bath furnishings, high quality home furniture, interior finishing, building elements that comply with the Deco Paint Directive	Deco Paint-compliant alternative to solvent based, high gloss varnishes; can be polished	1B	1 h



## AQUA FKL-402 JOINT FILLER LIQUID

Special Product for Parquet and Wood Floors

### Properties

Water based and mild-odour joint filler liquid for the production of wood fillers.

- Complies with the Deco Paint Directive
- Littel volume shrinkage
- Solvent-free and odour-free
- Can be subsequently coated with a sealant or treated with: Aidol Hard Wax Oil, Aqua PL-413 Parquet Varnish, PL-113-Parquet Varnish

### Application

- For producing a filler with wood dust
- For filling parquet and wood floors
- The filler is used before the floor is sanded the last time (fine sanding)
- Aqua FKL-402 Joint Filler Liquid is filled into a separate container and mixed thoroughly with 10–20% wood dust; using too much wood dust has a negative effect on adhesion

### Product data

Colour	clear
Art. No.	2368
Size of container	5 l
Thinning	if necessary with water (2–5%)
Application rate per working operation	approx. 50 ml/m <sup>2</sup> 1 l Aqua FKL-402 is sufficient for approx. 20 m <sup>2</sup>
Drying at 20°C, 65% relative humidity	
Can be sanded and re-coated after	approx. 30–60 min.

## AQUA MSV-403 PARQUET PRIMER

Special Primer for Parquet and Wood Floors

### Properties

Water based parquet primer to minimise glueing on the sides.

- Low-odour
- Complies with the Deco Paint Directive
- Minimises glueing on the sides
- Applied with a roller
- Sealed with Aqua PL-413 Parquet Varnish

### Application

For priming parquet and wood floors when there is a risk of torn joints, e.g.

- On edge parquet (industrial parquet)
- Wood block flooring
- Swimming batten flooring
- Non-shear resistant parquet

### Product data

Colour	clear
Art. No.	2369
Size of container	5 l
Thinning	material is formulated ready-to-use
Application rate per coat	approx. 100–120 ml/m <sup>2</sup>
Drying at 20°C, 65% relative humidity	
Can be sanded and re-coated after	approx. 1–2 hours





## AQUA PL-413 PARQUET VARNISH

High Quality, Single Component Sealant Applied with a Roller

### Product data

Colour	clear
Art. No.	2374 (silk gloss/50) 2375 (silk matt/30) 2376 (matt/20)
Size of containers	5 l, 10 l
Thinning	with water
Working time	4 hours when worked with Aqua H-480 Hardener
Application rate per coat	approx. 100 – 120 ml/m <sup>2</sup>
Application	roller
Drying at 20°C, 65% relative humidity	
Dust dry after	approx. 1 hour
Can be sanded and re-coated after	approx. 4 hours

### Properties

Sealing varnish on a high quality PU/acrylate dispersion base that is applied with a roller.

- Low-odour
- Complies with the Deco Paint Directive
- Extremely abrasion and scratch resistant
- Very good resistance to water
- Excellent emphasis of the wood substrate
- Improved mechanical and chemical loading capacity is achieved when cured with 10 % Aqua H-480 Hardener

### Application

As a single component varnish for hard wearing wood substrates in homes. Can also be used as a 2-component varnish with 10% Aqua H-480 Hardener for wood floors in homes and other objects that are subjected to heavy loads.

- Parquet
- Stairs
- Batten flooring

#### Test standards:

- DIN EN 71-3  
Safety for toys
- DIN 53160 parts 1 and 2  
Resistant to saliva and sweat
- DIN 68861 part 1, 1B  
Resistance to chemicals (with restrictions)

# SEALING PARQUET

## Standard System for Shear Resistant, Glued Parquet

Sanding	100–120 grit
Filling	<b>Aqua FKL-402 Joint Filler Liquid</b> Mix with 10–20 % wood dust from prior sanding operation, dry for approx. 30–60 minutes at room temperature
Sanding	100– 120 grit
Priming	<b>Aqua PL-413 Parquet Varnish</b> Application rate approx. 100–120 ml/m <sup>2</sup> , if required, thin with 5% water, dry for approx. 4 hours at room temperature
	Normal loads: Apply as a single component product
	Heavy loads: Add 10% Aqua H-480 Hardener
Intermediate Sanding	100–120 grit
Sealing	<b>Aqua PL-413 Parquet Varnish</b> Application rate approx. 100–120 ml/m <sup>2</sup> dry overnight
	Normal loads: Apply as a single component product
	Heavy loads: Add 10% Aqua H-480 Hardener
Intermediate sanding	180– 220 grit (not necessary if sealed the same day)
Sealing	<b>Aqua PL-413 Parquet Varnish</b> Application rate approx. 100–120 ml/m <sup>2</sup>
	Normal loads: Apply as a single component product
	Heavy loads: Add 10% Aqua H-480 Hardener

### Optimum drying conditions

- 20°C room temperature, at least 50% rel. humidity and a sufficient air exchange rate
- Lower room temperatures may impair film formation on the surface.
- Relative humidity that is too low may cause initial drying of the varnish film that is too fast; an insufficient air exchange rate delays initial drying and full cure.

# SEALING PARQUET

## System for Minimising Glueing on the Sides

Sanding	100 – 120 grit		
Filling	<b>Aqua FKL-402 Joint Filler Liquid</b> Mix with 10–20 % wood dust from previous sanding operation, dry for approx. 30–60 minutes at room temperature		
Sanding	100 – 120 grit		
Priming	<b>Aqua MSV-403 Parquet Primer</b> Application rate approx. 100–120 ml/m <sup>2</sup> , dry for approx. 1–2 hours at room temperature		
Intermediate sanding	Light intermediate sanding (not necessary if sealed the same day)		
Priming	<b>Aqua PL-413 Parquet Varnish</b> Application rate approx. 100–120 ml/m <sup>2</sup> , dry for approx. 4 hours at room temperature		
	<table border="0"> <tr> <td>Normal loads: Apply as a single component product</td> <td>Heavy loads: Add 10% Aqua H-480 Hardener</td> </tr> </table>	Normal loads: Apply as a single component product	Heavy loads: Add 10% Aqua H-480 Hardener
Normal loads: Apply as a single component product	Heavy loads: Add 10% Aqua H-480 Hardener		
Intermediate sanding	100 – 120 grit		
Sealing	<b>Aqua PL-413 Parquet Varnish</b> Application rate approx. 100–120 ml/m <sup>2</sup> , dry overnight		
	<table border="0"> <tr> <td>Normal loads: Apply as a single component product</td> <td>Heavy loads: Add 10% Aqua H-480 Hardener</td> </tr> </table>	Normal loads: Apply as a single component product	Heavy loads: Add 10% Aqua H-480 Hardener
Normal loads: Apply as a single component product	Heavy loads: Add 10% Aqua H-480 Hardener		
Intermediate sanding	180 – 220 grit (not necessary if resealed the same day)		
Sealing	<b>Aqua PL-413 Parquet Varnish</b> Application rate approx. 100–120 ml/m <sup>2</sup>		
	<table border="0"> <tr> <td>Normal loads: Apply as a single component product</td> <td>Heavy loads: Add 10% Aqua H-480 Hardener</td> </tr> </table>	Normal loads: Apply as a single component product	Heavy loads: Add 10% Aqua H-480 Hardener
Normal loads: Apply as a single component product	Heavy loads: Add 10% Aqua H-480 Hardener		

### Essential differences between Aqua PL-413 Parquet Varnish with and without the addition of Aqua H-480 Hardener:

- Abrasion resistant
- Alcohol resistant

The 2-component version is more resistant to alcohol, insensitive to strong cleaning agents and resistance to abrasion is approx. 30% higher. That is why the 2-component solution is more suitable for areas with heavier wear.

Regular maintenance of sealed parquet is also essential to maintain its good looks.

### Notes on maintenance:

After 7 days, we recommend initial care with Aidol Stair and Parquet Fresh.



## AQUA FG-401 FILLING PRIMER

### Single Component Filling Primer for Varnishing in Interior Areas

#### Properties

Highly transparent, water based filling primer for varnishing in interior areas.

- Very good build and good sanding behaviour
- By adding 10% Aqua H-480 Hardener the substrate is sealed off extremely well
- Low-odour
- Complies with the Deco Paint Directive

**Note:** The use of Aqua H-480 Hardener is especially recommended for preparing high gloss surfaces.

#### Application

- For refining elements made of MDF boards and wood used in interior areas
- Especially as a primer varnish beneath matt finishes for optimum transparency
- For preparing high gloss surfaces
- For sealing MDF boards in combination with Aqua H-480 Hardener

#### Test standards:

- DIN EN 71-3 Safety for toys
- DIN 53160 parts 1 and 2 Resistant to saliva and sweat

#### Product data

Colour	clear
Art. No.	3266
Size of containers	5 l, 20 l
Working time	4 hours when worked with Aqua H-480 Hardener
Application rate per coat	approx. 120–150 ml/m <sup>2</sup>
Application	spraying

	Cup gun	Airless	Airmix
Nozzle [mm]	1.8	0.28–0.33	0.28–0.33
Air pressure	2–3 bar	–	1.2–2.0 bar
Material pressure	–	80–120 bar	80–100 bar

Drying at 20°C, 65% relative humidity	
Dust dry after	approx. 30 min.
Touch dry after	approx. 1.5 hours
Can be sanded and re-coated after	approx. 2–3 hours
Stacked after	drying overnight





## AQUA ANG-404 INTENSIFYING PRIMER

Special Primer for Intensifying Emphasis of the Grain with Aqua Varnishes

### Properties

Because of their warm emphasis of the grain on certain species of wood, 2-component PUR varnishes were usually preferred instead of water based varnishes.

Aqua ANG-404 Intensifying Primer now creates a look that comes very close to the look of 2-component PUR varnished surfaces using a water based system.

- Because of the very fine constituents of the dispersion, it penetrates deeply into the wood
- This intensifies emphasis of the grain – similar to solvent based varnishes
- Adhesion of the varnish is improved on hardwood and exotic species of wood
- It also improves resistance of the varnish system to water on porous species of wood
- Efficient working: Aqua ANG-404 replaces the first step when applying a 3-layer system
- Aqua ANG-404 does not need to be sanded
- After application, work can be continued “wet-on-damp”

### Application

- For universal use on all species of wood in indoor areas
- For stairs, parquet, furniture and interior finishing
- Used beneath Remmers Aqua varnishes
- Can also be used as a special primer for opaque Aqua varnish systems to strengthen/seal the substrate (minimises swelling behaviour)

### Product data

Colour	clear		
Art. No.	3825		
Size of container	5 l		
Application rate	approx. 80–120 ml/m <sup>2</sup>		
Application	brush, roller, spraying		
	Cup gun	Airless	Airmix
Nozzle [mm]	1.8	0.23–0.28	0.23–0.28
Air pressure	2–3 bar	–	1.2–2.0 bar
Material pressure	–	80–120 bar	80–100 bar

# SUGGESTIONS FOR WORKING

## Finishing with Intensifying Primer

### Suitable species of wood

Steamed beech, oak, wenge, walnut..., various exotic types (test system in advance)

### Sanding

100–180 grit, remove dust afterward

### Priming

**Note:** Subsequent finishing can be carried out “wet-on-damp” or after drying without intermediate sanding.

#### Aqua ANG-404 Intensifying Primer

Application rate 80–120 ml/m<sup>2</sup>,  
dry for approx. 5 minutes

Spray with a  
cup gun  
1.8 mm nozzle,  
air pressure 2–3 bar

Spray with airless / airmix  
0.23–0.28 mm nozzle,  
material pressure approx. 80–100 bar,  
air pressure 1.2–2 bar

### Intermediate varnishing

#### Aqua SL-410/414 Finish with the desired degree of gloss

Application rate: 80–120 ml/m<sup>2</sup>,  
dry in 2–3 hours at room temperature

Spray with a  
cup gun  
1.8 mm nozzle,  
air pressure 2–3 bar

Spray with airless / airmix  
0.23–0.28 mm nozzle,  
material pressure approx. 80–100 bar,  
air pressure 1.2–2 bar

### Intermediate sanding

220–280 grit, remove dust thoroughly afterward (dust binding cloth)

### Finishing

#### Aqua SL-410/414 Finish with the desired degree of gloss

Application rate: 80–120 ml/m<sup>2</sup>,  
dry for 2–3 hours at room temperature

Spray with a  
cup gun  
1.8 mm nozzle,  
air pressure 2–3 bar

Spray with airless / airmix  
0.23–0.28 mm nozzle,  
material pressure approx. 80–100 bar,  
air pressure 1.2–2 bar

#### Optimum drying conditions

- 20°C room temperature, at least 50% rel. humidity and a sufficient air exchange rate
- Lower room temperatures may impair film formation on the surface.
- Relative humidity that is too low may cause initial drying of the varnish film that is too fast; an insufficient air exchange rate delays initial drying and full cure.



## AQUA SL-414 Finish

Clear, Single Component Finish That Dries Extremely Quickly

### Properties

Water based, clear acrylic varnish for interior areas. Because of the attractive price per litre, this product is an interesting, environmentally correct alternative for (former) users of NC varnishes. As opposed to all of the other products in the Remmers Aqua series, Aqua SL-414 Finish is intended solely as a single component product. The use of Aqua H-480 Hardener is not possible.

- Low-odour
- Complies with the Deco Paint Directive
- Uniform build, good flow
- Good resistance
- Good sanding properties
- Extremely fast drying and can be quickly stacked

### Application

- Primer and topcoat
- For wood elements made of pine, spruce, beech, maple, oak, alder, etc. subjected to normal loads
- For furniture, interior doors and cases, panels, moulding, shelves, trade fair fittings, etc.

### Test standards:

- DIN EN 71-3  
Safety for toys
- DIN 53160 parts 1 and 2  
Resistant to saliva and sweat
- DIN 68861 part 1, 1C  
Resistance to chemicals

### Product data

Colour	clear
Art. No.	3820 (silk gloss/50) 3821 (semi-matt/30)
Size of containers	20 l, 120 l
Thinning	if necessary with water (2–5%)
Application rate per coat	approx. 80–130 ml/m <sup>2</sup>
Application	curtain coating, spraying

	Cup gun	Airless	Airmix
Nozzle [mm]	1.8	0.23–0.28	0.23–0.28
Air pressure	2–3 bar	–	1.2–2.0 bar
Material pressure	–	80–120 bar	80–100 bar

Drying at 20°C, 65% relative humidity

Dust dry after	approx. 20 min.
Touch dry after	approx. 30 min.
Can be sanded and re-coated after	approx. 60 min.
Stacked after	approx. 4–5 hours





## AQUA SL-410 FINISH

### Water Clear Acrylic Varnish for Varnishing in Interior Areas

#### Product data

Colour	clear		
Art. No.	3800 (silk matt/30) 3801 (silk gloss/50) 3804 (matt/20)		
Size of containers	5 l, 20 l		
Working time	3 hours when worked with Aqua H-480 Hardener		
Application rate per coat	approx. 80–120 ml/m <sup>2</sup>		
Application	spraying		
	Cup gun	Airless	Airmix
Nozzle [mm]	1.8	0.23–0.28	0.23–0.28
Air pressure	2–3 bar	–	1.2–2.0 bar
Material pressure	–	80–120 bar	80–100 bar
Drying at 20°C, 65% relative humidity			
Dust dry after	approx. 1 hour		
Touch dry after	90 minutes		
Can be sanded and re-coated after	approx. 2–3 hours		
Stacked after	drying overnight		

#### Properties

Single component, water based, clear acrylic varnish for varnishing in interior areas.

- Water clear
- Low-odour
- Complies with the Deco Paint Directive
- Excellent resistance to many household chemicals
- Good resistance to mechanical loads
- Very good scratch resistance
- Easy to apply
- Good sanding behaviour
- Uniform build, good flow
- If required, a sealing effect against substances in the wood that bleed and resistance to PVC plasticizers can be achieved by adding 10% Aqua H-480 Hardener

#### Application

- For wood and wood working materials in interior areas
- As a primer and topcoat
- Can also be used as a finish over Color Varnishes
- For doors, furniture, mouldings

#### Test standards:

- DIN EN 71-3  
Safety for toys
- DIN 68861 part 1, 1B  
Resistance to chemicals (with restrictions)



## AQUA SL-415 FINISH

### Clear Acrylic Varnish with Good Emphasis for Varnishing in Interior Areas

#### Properties

Aqua SL-415 Finish is a new generation water based, clear varnish from Remmers and is distinguished by the following properties:

- Low-odour
- Complies with the Deco Paint Directive
- High build
- Very good flow and emphasis of the grain
- Can be quickly sanded, good sanding properties
- Resistant to PVC plasticizers and many handcreams even when used as a single component product
- Extremely suitable for varnishing interior doors
- Also good for working on vertical surfaces

#### Application

- For furniture, interior finishing and particularly for doors
- As a primer and topcoat
- Can also be used as a topcoat over Color Varnishes

#### Test standards:

- DIN EN 71-3  
Safety for toys
- DIN 53160 parts 1 and 2  
Resistant to saliva and sweat
- DIN 68861 part 1, 1B  
Resistant to chemicals (with the exception of alcohol)

Drying at 20°C, 65% relative humidity	
Dust dry after	approx. 30 min.
Touch dry after	approx. 1.5 hours
Can be sanded and re-coated after	approx. 2 hours
Stacked after	drying overnight

#### Product data

Colour	clear		
Art. No.	1856 (gloss/70) 1855 (silk gloss/50) 1854 (semi-matt/30) 1853 (matt/20) 1852 (dull matt/10) 3818 special colours (semi-matt/30)		
Size of containers	5 l, 20 l		
Thinning	if necessary with 2–5 % water		
Working time	3 hours when worked with Aqua H-480 Hardener		
Application rate per coat	approx. 80–120 ml/m <sup>2</sup>		
Application	spraying		
	Cup gun	Airless	Airmix
Nozzle [mm]	1.8–2.0	0.23–0.28	0.23–0.28
Air pressure	2–3 bar	–	1.2–2.0 bar
Material pressure	–	80–120 bar	80–100 bar

# SUGGESTIONS FOR WORKING

## Finishing with Aqua Varnishes

<b>Suitable species of wood</b>	Beech, oak, maple..., various tropical species of wood (test system in advance)		
<b>Sanding</b>	120–180 grit, remove dust afterward		
<b>Staining (if applicable)</b>	<b>Aqua KB-004 Compact Stain</b> Spray with a cup gun 1.3–1.5 mm nozzle, air pressure 2–3 bar, dry for 2–3 hours at room temperature		
<b>Priming</b>	<b>Aqua SL-415 Finish with the desired degree of gloss</b> Application rate approx. 80–120 ml/m <sup>2</sup> , dry for 2–3 hours at room temperature  <table><tr><td>Spray with at cup gun 1.8 mm nozzle, air pressure 2–3 bar</td><td>Spray with airless / airmix 0.23–0.28 mm nozzle, material pressure approx. 100 bar, air pressure 1.2–2 bar</td></tr></table>	Spray with at cup gun 1.8 mm nozzle, air pressure 2–3 bar	Spray with airless / airmix 0.23–0.28 mm nozzle, material pressure approx. 100 bar, air pressure 1.2–2 bar
Spray with at cup gun 1.8 mm nozzle, air pressure 2–3 bar	Spray with airless / airmix 0.23–0.28 mm nozzle, material pressure approx. 100 bar, air pressure 1.2–2 bar		
<b>Intermediate sanding</b>	220–280 grit, remove dust afterward		
<b>Finishing</b>	<b>Aqua SL-415 Finish in the desired degree of gloss</b> Application rate approx. 80–120 ml/m <sup>2</sup> , dry for 2–3 hours at room temperature  <table><tr><td>Spray with a cup gun 1.8 mm nozzle, air pressure 2–3 bar</td><td>Spray with airless / airmix 0.23–0.28 mm nozzle, material pressure approx. 100 bar, air pressure 1.2–2 bar</td></tr></table>	Spray with a cup gun 1.8 mm nozzle, air pressure 2–3 bar	Spray with airless / airmix 0.23–0.28 mm nozzle, material pressure approx. 100 bar, air pressure 1.2–2 bar
Spray with a cup gun 1.8 mm nozzle, air pressure 2–3 bar	Spray with airless / airmix 0.23–0.28 mm nozzle, material pressure approx. 100 bar, air pressure 1.2–2 bar		

**Note:** Trial varnishing in advance is recommended. Highly absorbent species of wood may need to be primed twice to achieve the desired build. Product properties can be improved by adding Aqua H-480 Hardener. To ensure that the hardener is thoroughly stirred and worked into the varnish, we recommend using the Remmers Patent Disperser (see page 93).

### Optimum drying conditions

- 20°C room temperature, at least 50% rel. humidity and a sufficient air exchange rate
- Lower room temperatures may impair film formation on the surface.
- Relative humidity that is too low may cause initial drying of the varnish film that is too fast; an insufficient air exchange rate delays initial drying and full cure.



## AQUA TL-412 STAIR VARNISH

Single Component, High Quality, Water Based Sealing Varnish

### Properties

- Low-odour
- Complies with the Deco Paint Directive
- Very economical because of its high solid content
- Excellent build: Top surfaces after just two sprayed coats
- Dries quickly, good sanding properties
- Very good resistance to many handcreams, household chemicals and PVC plasticizers even when used as a single component varnish
- Extremely high abrasion resistance
- Good transparency and smooth surface

### Application

- Stairs
- For all types of wood elements and furniture in living spaces

#### Test standards:

- DIN EN 71-3  
Safety for toys
- DIN 53160 parts 1 and 2  
Resistant to saliva and sweat
- DIN 68861 part 1, 1B  
Resistant to chemicals (with the exception of alcohol)
- The abrasion resistance of Aqua TL-412 and Aqua H-480 has been tested according to DIN ENV 13696 and meets the "ihd requirement profile for wood floor varnishes" in utilisation classes 1–6
- Resistant to handcreams (Remmers internal test)

### Product daten

Colour	clear		
Art-Nr.	2370 (matt/20) 2372 (silk gloss/50) 2373 (silk matt/30) 3819 special colours (silk matt/30)		
Size of containers	5 l, 20 l		
Thinning	if necessary with water (2–5%)		
Working time	4 hours when worked with Aqua H-480 Hardener		
Application rate per coat	approx. 100–130 ml/m <sup>2</sup>		
Application	spraying, dipping		
	Cup gun	Airless	Airmix
Nozzle [mm]	1.8	0.28–0.33	0.28–0.33
Air pressure	2–3 bar	–	1.2–2.0 bar
Material pressure	–	80–120 bar	80–100 bar
<b>Drying at 20°C, 65% relative humidity</b>			
Dust dry after	approx. 1 hour		
Can be sanded and re-coated after	approx. 2–4 hours		
Stacked after	drying overnight		

# SUGGESTIONS FOR WORKING

## Varnishing Stairs with Aqua Varnishes

<b>Suitable species of wood</b>	Beech, oak, maple..., various tropical species of wood (test system in advance)		
<b>Sanding</b>	120–180 grit, remove dust afterward		
<b>Staining (if applicable)</b>	<b>Aqua KB-004 Compact Stain</b> 1.3–1.5 mm nozzle, air pressure 2–3 bar, dry for 2–3 hours at room temperature		
<b>Priming</b>	<b>Aqua TL-412 Stair Varnish in the desired degree of gloss</b> Application rate approx. 100–130 ml/m <sup>2</sup> , dry for 2–4 hours at room temperature		
<b>Note:</b> Prime twice if necessary.	<table><tr><td>Spray with a cup gun 1.8 mm nozzle, air pressure 2–3 bar</td><td>Spray with airless / airmix 0.23–0.28 mm nozzle, material pressure approx. 100 bar, air pressure 1.2–2 bar</td></tr></table>	Spray with a cup gun 1.8 mm nozzle, air pressure 2–3 bar	Spray with airless / airmix 0.23–0.28 mm nozzle, material pressure approx. 100 bar, air pressure 1.2–2 bar
Spray with a cup gun 1.8 mm nozzle, air pressure 2–3 bar	Spray with airless / airmix 0.23–0.28 mm nozzle, material pressure approx. 100 bar, air pressure 1.2–2 bar		
<b>Intermediate sanding</b>	220–240 grit, remove dust afterward		
<b>Finishing</b>	<b>Aqua TL-412 Stair Varnish in the desired degree of gloss</b> Application rate approx. 100–130 ml/m <sup>2</sup> , dry for 2–4 hours at room temperature		
<b>Note:</b> Trial varnishing in advance is recommended. Highly absorbent species of wood may need to be primed twice to achieve the desired build. Product properties can be improved by adding Aqua H-480 Hardener. To ensure that the hardener is thoroughly stirred and worked into the varnish, we recommend using the Remmers Patent Dispenser (see page 93).	<table><tr><td>Spray with a cup gun 1.8 mm nozzle, air pressure 2–3 bar</td><td>Spray with airless / airmix 0.23–0.28 mm nozzle, material pressure approx. 100 bar, air pressure 1.2–2 bar</td></tr></table>	Spray with a cup gun 1.8 mm nozzle, air pressure 2–3 bar	Spray with airless / airmix 0.23–0.28 mm nozzle, material pressure approx. 100 bar, air pressure 1.2–2 bar
Spray with a cup gun 1.8 mm nozzle, air pressure 2–3 bar	Spray with airless / airmix 0.23–0.28 mm nozzle, material pressure approx. 100 bar, air pressure 1.2–2 bar		

### Optimum drying conditions

- 20°C room temperature, at least 50% rel. humidity and a sufficient air exchange rate
- Lower room temperatures may impair film formation on the surface.
- Relative humidity that is too low may cause initial drying of the varnish film that is too fast; an insufficient air exchange rate delays initial drying and full cure.



## AQUA-UV SL-510 FINISH

### Radiation Cured, Multiple-Layer Varnish for Indoor Areas

#### Properties

UV-curing varnish systems have been gaining ground in the wood working trade because of advantages such as efficient application and environmental friendliness. Aqua UV SL-510 Finish is a multiple-layer varnish for universal use that cures within seconds after forced drying and UV-radiation.

- Good build
- High transparence
- Very good feel
- Highly resistant to water
- After UV-curing the coated elements can be immediately stacked

#### Application

- For wood elements in interior areas
- e.g. home furniture, doors, table tops, stair steps, etc. as a primer and a topcoat
- For operations equipped for the technology (forced drying, UV-lamp)

#### Test standards:

- DIN EN 71-3  
Safety for toys
- DIN 53160 parts 1 and 2  
Resistant to saliva and sweat
- DIN 68861 part 1, 1B  
Resistant to chemicals

#### Product data

Colour	clear		
Art. No.	3786 (matt/20) 3787 (semi-matt/30)		
Size of container	20 l		
Thinning	if necessary with water (max. 5%)		
Application rate per coat	approx. 80–120 ml/m <sup>2</sup>		
Application	spraying		
	Cup gun	Airless	Airmix
Nozzle [mm]	1.8	0.23–0.28	0.23–0.28
Air pressure	2–3 bar	–	1.2–2.0 bar
Material pressure	–	100–120 bar	80–100 bar
<b>Drying at 20°C, 65% relative humidity</b>			
Forced drying	at 40°C with jet drier for 15 min		
Curing	2 mercury lamps 80 watt, 5 m/min		
Can be sanded	directly after curing		
Stacked	directly after curing		



# AQUA 2DS-450-2K DIAMOND SEAL

## 2-Component Acrylic Varnish for Highest Quality Varnishing in Interior Areas

### Product data

Colour	clear		
Art. No.	3869 (matt/20) 3870 (semi-matt/30) 3871 (silk gloss/50)		
Size of containers	5 l, 20 l		
Mixing ratio with Aqua H-480 Hardener	10:1		
Thinning	if necessary with water (2–5%)		
Pot-life	approx. 3 hours		
Application rate per coat	approx. 80–120 ml/m <sup>2</sup>		
Application	spraying		
	Cup gun	Airless	Airmix
Nozzle [mm]	1.8	0.23–0.28	0.23–0.28
Air pressure	2–3 bar	–	1.2–2.0 bar
Material pressure	–	100–120 bar	80–100 bar
Drying at 20°C, 65% relative humidity			
Dust dry after	approx. 1 hour		
Touch dry after	approx. 1.5 hours		
Can be sanded and re-coated after	approx. 2–3 hours		
Stacked after	drying overnight		

### Properties

Aqua 2DS-450-2K Diamond Seal is a new development and was designed as a 100 % replacement for solvent based, 2-component PUR varnishes. The material can be applied as a multiple-layer varnish or as a topcoat and is highly convincing because it is resistant to chemicals and scratches without any compromises.

- Uniform build, good flow
- Extremely resistant to scratches, household chemicals (without restrictions DIN 68861 part 1, 1B), PVC plasticizers and handcreams

### Application

- For furniture surfaces that are subjected to extreme loads
- e.g. kitchen counters and table tops
- Can also be used as a topcoat on opaque varnished or clear varnished dark wood or dark stained wood

### Test standards:

- DIN EN 71-3  
Safety for toys
- DIN 53160 part 1 and 2  
Resistant to saliva and sweat
- DIN 68861 part 1, 1B  
Resistant to chemicals



## AQUA 2HL-411/90 HIGH GLOSS

2-Component, Acrylic Finish for High Gloss Varnishing Subjected to Heavy Loads

### Properties

- Uniform build, good flow
- Excellent emphasis of the grain and lightfast to a high degree
- Extremely resistant to scratches, household chemicals (unrestricted DIN 68861 part 1, 1B), PVC plasticizers and handcream

### Application

- To achieve high gloss surfaces
- For furniture surfaces subjected to extreme loads: e.g. kitchen counters and table tops
- For stationary elements in interior areas - complies with the Deco Paint Directive without any restrictions
- Can also be used as a topcoat on opaque varnished surfaces

### Test standards:

- DIN EN 71-3  
Safety for toys
- DIN 53160 parts 1 and 2  
Resistant to saliva and sweat
- DIN 68861 part 1, 1B  
Resistant to chemicals

### Product data

Colour	clear
Art. No.	3872
Size of container	5 l
Mixing ratio with Aqua H-480 Hardener	5:1
Thinning	if necessary with water (2–5%)
Pot-life	approx. 60 min.
Application rate per coat	approx. 80–120 ml/m <sup>2</sup>
Application	spraying

	Cup gun	Airless	Airmix
Nozzle [mm]	1.8	0.23–0.28	0.23–0.28
Air pressure	2–3 bar	–	1.2–2.0 bar
Material pressure	–	100–120 bar	80–100 bar

Drying at 20°C, 65% relative humidity

Dust dry after	approx. 30–45 min.
Touch dry after	approx. 90 min.
Can be sanded and re-coated after	approx. 12 hours
Stacked after	approx. 14–16 hours
Polished after	approx. 3 days



# SUGGESTIONS FOR WORKING

## High Gloss Varnishing with 2-Component Aqua Varnishes

### Suitable species of wood

Cherry, mahogany, walnut..., various species of tropical wood (test system in advance)

### Sanding

120–180 grit, remove dust afterward

### Staining (if applicable)

#### Aqua KB-004 Compact Stain

Spray with a cup gun  
1.3–1.5 mm nozzle, air pressure 2–3 bar,  
dry for 2–3 hours at room temperature

### Priming

**Note:** To ensure that the hardener is stirred and worked into the varnish thoroughly, we recommend the use of the Remmers Patent Disperser (see page 93). If necessary, prime several times with Aqua-FG-401 Filling Primer.

#### PUR FG-401 Filling Primer, mixing ratio 10:1 with Aqua H-480 Hardener

Application rate approx. 80–120 ml/m<sup>2</sup>,  
dry for 2–3 hours at room temperature

Spray with a  
cup gun  
1.8 mm nozzle,  
air pressure 2–3 bar

Spray with airless / airmix  
0.23–0.28 mm nozzle,  
material pressure approx. 100 bar,  
air pressure 1.2–2 bar

### Intermediate sanding

**Note:** Sand after each layer of varnish

400–600 grit, remove dust thoroughly (dust binding cloth)

### Finishing

**Note:** When varnishing some species of tropical wood such as mahogany, it has proved advantageous to prime several times with strongly diluted varnish to make sure that very fine pores are closed. Highly absorbent species of wood such as limba may need to be primed several times to make sure there is sufficient build. Please remember that when applying high gloss varnishes, the working areas must be dust-free. Thorough cleaning of the varnishing booth and varnishing equipment and, if necessary, wetting the floor is also beneficial. Trial varnishing in advance is generally advisable; if necessary, varnish with Aqua 2HL-411/90 after drying for 12 hours, without intermediate sanding, and repeat with fresh material.

#### Aqua 2HL-411/90-2K High Gloss, mixing ratio 5:1 with Aqua H-480 Hardener

Application rate approx. 120 ml/m<sup>2</sup>

Spray with at  
cup gun  
1.8 mm nozzle,  
air pressure 2–3 bar

Spray with airless / airmix  
0.23–0.28 mm nozzle,  
material pressure approx. 100 bar,  
air pressure 1.2–2 bar

The surface can be polished after approx. 3 days

#### Optimum drying conditions

- 20°C room temperature, at least 50% rel. humidity and a sufficient air exchange rate
- Lower room temperatures may impair film formation on the surface.
- Relative humidity that is too low may cause initial drying of the varnish film that is too fast; an insufficient air exchange rate delays initial drying and full cure.

# Water Based Color Varnishes





## AQUA PF-430 PIGMENT FILLER

Single Component Filler with Very Good Sanding Properties for Opaque Varnishing

### Product data

Art.Nr./colour	3265/white 3267/special colours		
Size of containers	5 l, 20 l		
Thinning	not necessary, ready to use		
Application per working operation	approx. 120–150 ml/m <sup>2</sup>		
Application	spraying		
	Cup gun	Airless	Airmix
Nozzle [mm]	2.0–2.5	0.33–0.38	0.33–0.38
Air pressure	2–3 bar	–	1.2–2.0 bar
Material pressure	–	80–120 bar	80–100 bar
Drying at 20°C, 65% relative humidity			
Dust dry after	approx. 1 hour		
Can be sanded and re-coated after	approx. 2 hours		
Stacked after	drying overnight		

### Properties

Opaque, water based filler for interior varnishing work.

- Low-odour
- Complies with the Deco Paint Directive
- Good build and hiding power
- Can be sanded quickly, good sanding behaviour
- A single component, the product has excellent properties and does not need a hardener
- Seals off substances in the wood very well (e.g. oak)

**Note:** Aqua PF-430 Pigment Filler is also available in light shades of RAL colours. This is especially interesting for simple elements, e.g. the insides of cabinets (and for varnishing stairs).

Since the product can be tinted, varnishing with a high quality coloured varnish (and clear finish to achieve resistance to metal rings) can often be dispensed with for such elements. In that case, the tinted filler is just sealed with a clear topcoat (e.g. Aqua SL-415 Finish).

### Application

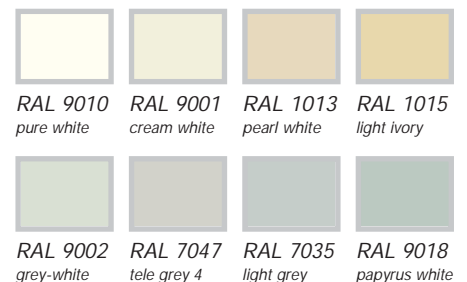
For preparing closed-pore surfaces. For priming and intermediate coating of all conventional substrates used in interior finishing.

- Solid wood
- Sealed MDF boards
- Priming films
- Hardboard
- High quality furniture
- Doors, etc.

### Test standards:

- DIN EN 71-3  
Safety for toys

### Colours\*:



\* Other shades of colour upon request. Printed colours may deviate from the actual colours.



## AQUA CL-440/30 COLOR VARNISH

Single Component Acrylic Varnish with Very Good Hiding Power for Coloured Varnishing

### Properties

Environmentally correct, opaque, water based acrylic varnish for varnishing in interior areas.

- Low-odour
- Complies with the Deco Paint Directive
- Very good hiding power
- Can be quickly sanded
- Easy to apply
- Good resistance to metal rings
- Can be tinted in RAL and NCS shades of colour
- Good adhesion on glass (after cleaning the surface thoroughly with V-890 Thinner)
- If required, 10% Aqua H-480 Hardener can be added to improve resistance to metal rings and resistance to chemicals.

### Application

For the production of coloured, closed-pore surface on all conventional substrates used in interior finishing. Particularly for subsequent coating of surfaces treated with Aqua-PF-430.

- Solid wood
- Filled MDF boards
- Priming films
- Hardboard
- High quality furniture
- Doors, etc.

### Test standards:

- DIN EN 71-3  
Safety for toys
- DIN 68861 part 1, 1B  
Resistant to chemicals

### Product data

<b>Art. Nr./colour</b>	3802/white The degree of gloss is semi-matt/30 for all shades of colour		
<b>Size of containers</b>	5 l, 20 l for special colours: 0.75 l, 2.5 l, 5 l, 20 l		
<b>Thinning</b>	if necessary with water (2–5%)		
<b>Working time</b>	4 hours when worked with Aqua H-480 Hardener		
<b>Application rate per coat</b>	approx. 120–150 ml/m <sup>2</sup>		
<b>Application</b>	spraying		
	<b>Cup gun</b>	<b>Airless</b>	<b>Airmix</b>
<b>Nozzle [mm]</b>	1.8	0.28–0.33	0.28–0.33
<b>Air pressure</b>	2–3 bar	–	1.2–2.0 bar
<b>Material pressure</b>	–	80–120 bar	80–100 bar
<b>Drying at 20°C, 65% relative humidity</b>			
<b>Dust dry after</b>	approx. 1 hour		
<b>Can be sanded and re-coated after</b>	approx. 3–4 hours		
<b>Stacked after</b>	drying overnight		



# OPAQUE SYSTEMS WITH AQUA VARNISHES

## Step for Step to Perfectly Varnished Surfaces

The opaque varnishing of MDF board and certain problematical woods with water based varnishes differs in several ways (swelling behaviour, dry-

ing, sealing) from varnishing with solvent based varnishes. If the systems and instructions given in the following overview are taken into account,

many problems can be eliminated right from the beginning.

Work step	MDF /HDF in damp rooms	MDF /HDF in living spaces
Cleaning	-	-
Application of the product	<b>Aqua ANG-404 Intensifying Primer</b> Application rate 80–120 ml/m <sup>2</sup> , dry for 1 hour 20°C, 50% relative humidity	-
Sanding	if necessary, very light sanding, 240 grit	-
Application of the product	<b>Aqua PF-430 Pigment Filler</b> Application rate 120–150 ml/m <sup>2</sup> , dry for 1–2 hours 20°C, 50% relative humidity	<b>Aqua PF-430 Pigment Filler**</b> Application rate 120–150 ml/m <sup>2</sup> , dry for 1–2 hours 20°C, 50% relative humidity
Sanding	240 grit	240** grit
Application of the product	<b>Aqua PF-430 Pigment Filler</b> Application rate 120–150 ml/m <sup>2</sup> , dry for 4 hours 20°C, 50% relative humidity*	<b>Aqua PF-430 Pigment Filler</b> Application rate 120–150 ml/m <sup>2</sup> , dry for 4 hours 20°C, 50% relative humidity*
Sanding	240 grit	240 grit
Application of the product	<b>Aqua CL-440/30-Colorlack</b> Application rate 120–150 ml/m <sup>2</sup> , can be coated over after 3 hours, stacked after 16 hours, dry overnight 20°C, 50% relative humidity	<b>Aqua CL-440/30-Colorlack</b> Application rate 120–150 ml/m <sup>2</sup> , can be coated over after 3 hours, stacked after 16 hours, dry overnight 20°C, 50% relative humidity

<b>Soft wood***</b>	<b>Oak, ash, limba</b>	<b>Note:</b>
V-890 Thinner	-	Remove resin galls
<b>Aqua SL-415 Finish or Aqua FG-401 Filling Primer</b> each with 10% Aqua H-480 Hardener, application rate 80–120 ml/m <sup>2</sup> , dry for 4 hours (better overnight)	<b>Aqua SL-415 Finish or Aqua FG-401 Filling Primer</b> each with 10% Aqua H-480 Hardener, application rate 80–120 ml/m <sup>2</sup> , dry for 4 hours (better overnight)	Aqua-ANG-404 is used to strengthen MDF boards and minimise swelling behaviour: additional protection for use in damp rooms; may not be varnished “wet-on-wet” in this application.
if necessary, very light sanding, 240 grit	-	Reduces standing coarse fibres
<b>Aqua PF-430 Pigment Filler</b> application rate 120–150 ml/m <sup>2</sup> , dry for 1–2 hours 20°C, 50% relative humidity	<b>Aqua PF-430-Pigmentfüller</b> application rate 120–150 ml/m <sup>2</sup> , dry for 1–2 hours 20°C, 50% relative humidity	A good air exchange rate accelerates drying and reduces swelling.
240 grit	240 grit	Do not sand through.
<b>Aqua PF-430-Pigmentfüller</b> application rate 120–150 ml/m <sup>2</sup> , dry for 4 hours 20°C, 50% relative humidity*	<b>Aqua PF-430-Pigmentfüller</b> application rate 120–150 ml/m <sup>2</sup> , dry overnight / 16 hours 20°C, 50% relative humidity*	Drying overnight minimises re-dissolving from the substrate which improves the sealing effect.
240 grit	240 grit	Do not sand through.
<b>Aqua CL-440/30 Color Varnish</b> application rate 120–150 ml/m <sup>2</sup> , can be coated over after 3 hours, stacked after 16 hours, dry overnight 20°C, 50% relative humidity	<b>Aqua CL-440/30-Colorlack</b> application rate 120–150 ml/m <sup>2</sup> , can be coated over after 3 hours, stacked after 16 hours, dry overnight 20°C, 50% relative humidity	By working with Aqua H-480 (mixing ratio 10:1), resistance to metal rings can be increased. If necessary, surfaces can be finished with one of the clear Aqua SL Finishes to increase resistance to metal rings and to adjust the degree of gloss.

\* For especially problematical qualities of MDF board, we recommend drying overnight/16 hours at 20°C, 50% relative humidity

\*\* Optional work step, not necessary in many cases

\*\*\* In the case of soft wood, bleeding of resin can never be prevented completely.

# Hardener & Thinners for Water Based Varnishes





# COMBINATION OPTIONS FOR AQUA VARNISHES

with Hardeners, Thinners and Additives

Hardener / Thinner		Varnishes	Additive / Effects	
Aqua H-480 Hardener	Aqua V-490 Retarder		SM-820 Texturing Agent	ULM-822 Universal Light Protector
✓	✓	Aqua FG-401 Filling Primer	✓	✓
✗	✓	Aqua SL-414 Finish	✓	✓
✓	✓	Aqua SL-415 Finish	✓	✓
✓	✓	Aqua TL-412 Stair Varnish	✓	✓
✓	✓	Aqua PL-413 Paquet Varnish	✓	✓
✗	✓	Aqua PF-430 Pigment Filler	✗	✗
✓	✓	Aqua CL-440/30 Color Varnish	✓	✗
✓*	✓	Aqua 2DS-450-2K Diamond Seal	✓	✓
✓*	✓	Aqua 2HL-411-2K High Gloss	✗	✓
✗	✓	Aqua MSV-403 Parquet Primer	✗	✓
✗	✓	Aqua FKL-402 Joint Filler Liquid	✗	✗

\* The use of the hardener component is essential.

# AQUA H-480 HARDENER

## Hardener Component for Remmers Aqua Varnishes

### Properties

Lightfast hardener component which, if required, can be added to Remmers Aqua varnishes to improve the properties of the varnish and the resistance of the varnish.

- Easily worked into the varnish, foam-free (best done with the Remmers Patent Disperser)
- High degree of cross-linking just after drying overnight (very early resistance to chemical and mechanical loads)
- Resistant to bleaches

### Important note:

The products Aqua 2DS-450-2K Diamond Seal and Aqua 2HL-411-2K High Gloss must always be worked with Aqua H-480 Hardener.

### Application

Remmers Aqua varnishes have outstanding properties and resistance even when worked as a classic, single component varnish. But sometimes a bit more is needed. To ensure that the hardener component is worked into the varnish with as little foam and gel as possible, we recommend the use of the Remmers Patent Disperser. It is also advisable to pre-mix the required quantity of Aqua H-480 Hardener 1:1 with water first and to then immediately work this mixture into the varnish.

### Mode of action:

Remmers Aqua varnishes consist of self-cross-linking polyurethane and acrylate dispersions. Through careful selection and coordination of the dispersions, cross-linking mechanisms take place during drying that later lead to a film of varnish that can be subjected to heavy loads. If Aqua H-480 Hardener is added to the varnish in addition, further cross-linking mechanisms take place that enhance the quality of the film of varnish even further.

### Product data

Colour	clear
Art. No.	3806
Size of container	0.5 l, 2l
Mixing ratio with Aqua varnishes	See information for varnish components
Aid for working into the product	Remmers-Patent Disperser

Improves certain properties of the varnish up to 30%							
	Varnish version	Resistance to metal rings	Sealing effect	Adhesion	Abasion resistance	Resistance to handcream	Resistance to chemicals
10% Aqua H-480 Hardener worked in with the Remmers Patent Disperser:	Aqua CL-440/30 Color Varnish	x				x	x
	Aqua FG-401 Filling Primer		x	x			x
	Aqua PL-413 Parquet Varnish				x		x
	Aqua SL-415 Finish		x	x			x
	Aqua TL-412 Stair Varnish		x		x	x	x

# AQUA V-490 RETARDER

## Special Thinner for Aqua Stains

### Product data

Art. No.	1939
Size of container	0.75 l
Quantity required	approx. 5–10% is added to Aqua stains approx. 1–3% is added to Remmers Aqua varnishes

### Properties

- Achieves a longer open time of the stain or Aqua varnish

### Application

- To improve the brushing quality of stains particularly on absorbent species of wood.
- For better brushing behaviour on larger surfaces (doors, tables, etc.)
- To improve the flow properties of Aqua varnishes in low humidity
- Pre-mix the retarder 1:1 with water and then stir into the varnish.

# AQUA RK-898 CLEANING CONCENTRATE

## Highly Effective Cleaning Agent

### Product data

Colour	clear
Art. No.	3868
Size of container	5 l
Quantity required	according to needs, depending on degree of soiling, the concentrate is diluted up to 1:5 with water

### Properties

- High yielding concentrate
- Easily removes fresh water based varnish systems
- The cleaner is not particularly aggressive to anodised elements: does not attack the surface of flow cup guns

### Application

- For cleaning spray equipment, flow cup guns, spraying booths, overhead conveyors, etc.

# UV-Curing Varnishes



For especially efficient coating of two-dimensional elements in the wood working trade, Remmers offers an assortment of UV varnishes that are applied by roller and then cured with UV-lamps. The following products can be used practically universally and are distinguished by a solid content of nearly 100%, uncomplicated application and stability.

# UV WG-607 ROLL COAT PRIMER LV

Radiation Curing Primer for Roll Coating with a Highly Viscous Formulation

## Product data

Colour	clear
Art. No.	3859
Size of container	10 kg
Application rate	7 – 20 g/m <sup>2</sup>
Application	Roll coating Depending on application rate in g/m <sup>2</sup> 10 m feed per radiation unit (e.g. high pressure mercury vapour lamp 80 watt/cm).

## Properties

- Highly viscous formulation: 130 sec. DIN 6 mm
- Good build, highly transparent
- Good sanding behaviour
- Can be mixed with UV WG-608 Roll Coat Primer NV

## Application

- For use in roll coating facilities equipped for UV curing
- Suitable for closed-pore varnishing
- For priming flat elements
- For all conventional substrates such as veneer and solid wood
- Suitable for kitchen cabinets, bathroom furnishings, office and home furniture, stairs and doors
- Suitable for light filler machines

### Test standards:

- DIN EN 71-3  
Safety for toys
- DIN 53160 parts 1 and 2  
Resistant to saliva and sweat

# UV WG-608 ROLL COAT PRIMER NV

Radiation Curing Primer for Roll Coating, Low Viscosity Formulation

## Product data

Colour	clear
Art. No.	3860
Size of container	10 kg
Application rate	7 – 20 g/m <sup>2</sup>
Application	Roll coating Depending on application rate in g/m <sup>2</sup> 10 m feed per radiation unit (e.g. high pressure mercury vapour lamp 80 watt/cm).

## Properties

- Low viscosity formulation: 50 sec. DIN 6 mm
- Good build, high transparency
- Good sanding behaviour
- Can be mixed with UV WG-607 Roll Coat Primer LV

## Application

- For use in roll coating facilities equipped for UV curing
- Suitable for open-pore varnishing
- For priming flat elements
- For all conventional substrates such as veneer and solid wood
- Suitable for kitchen cabinets, bathroom furnishings, office and home furniture, stairs and doors

### Test standards:

- DIN EN 71-3  
Safety for toys
- DIN 53160 parts 1 and 2  
Resistant to saliva and sweat

# UV UL-650/25 ROLL TOPCOAT

UV Finish Especially for Furniture

## Properties

- High reactivity
- Excellent flow stability
- Positive feel
- Good resistance to chemicals and scratches

## Application

- For surfaces primed with UV WG-607 or UV WG-608 Roll Coat Primer
- Suitable for kitchen cabinets, bathroom furnishings, office and home furniture and interior doors

### Test standards:

- DIN EN 71-3  
Safety for toys
- DIN 53160 parts 1 and 2  
Resistant to saliva and sweat
- DIN 68861 part 1, 1B  
Resistant to chemicals

## Product data

Colour	clear
Art. No.	3873 (semi-matt/25)
Size of container	10 kg
Application rate	4 – 8 g/m <sup>2</sup>
Application	Roll coating At least 1 mercury lamp 80 watt per 5 m/min feed

# UV UL-652/25 ROLL TOPCOAT

UV Finish Especially for Elements Subjected to Heavy Loads

## Properties

- High reactivity
- Excellent flow stability as well as a positive feel
- Very good resistance to chemicals, scratches and abrasion

## Application

- For surfaces primed with UV WG-607 or UV WG-608 Roll Coat Primer
- Suitable for surfaces subjected to heavy loads, e.g. stairs and parquet

### Test standards:

- DIN EN 71-3  
Safety for toys
- DIN 53160 parts 1 and 2  
Resistant to saliva and sweat
- DIN 68861 part 1, 1B  
Resistant to chemicals

## Product data

Colour	clear
Art. No.	3874 (semi-matt/25)
Size of container	10 kg
Application rate	4 – 10 g/m <sup>2</sup>
Application	Roll coating At least 1 mercury lamp 80 watt per 5 m/min feed



## UV SL-610/25 FINISH

Multiple Layer UV Varnish Especially for Table Tops and Interior Doors

### Product data

Colour	clear
Art. No.	3785 (semi-matt/25)
Size of container	10 kg
Application rate	7 – 20 g/m <sup>2</sup>
Application	Roll coating UV-gelling 15 m/min feed – UV curing 5 m/min feed per lamp unit (e.g. high pressure mercury vapour lamp 80 watt/cm)

### Properties

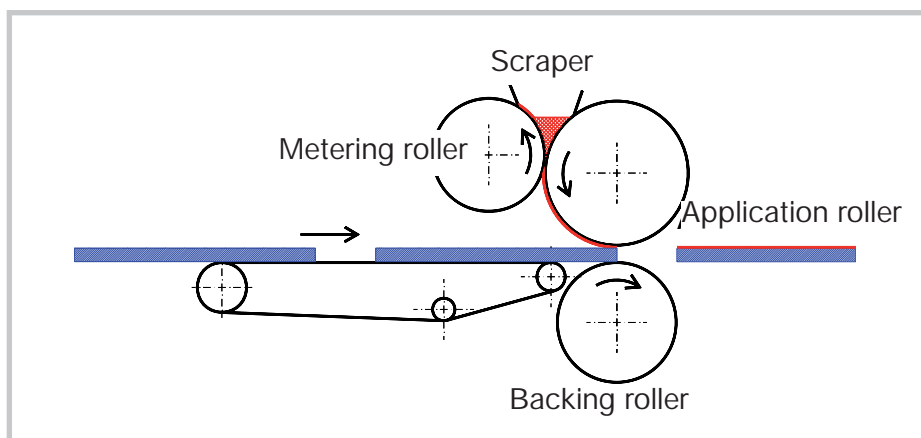
- Simple roller technique (Proficoater)
- High reactivity
- Good resistance
- No switch of varnishes necessary between individual layers

### Application

- Can be used as a primer and a finish
- For all conventional substrates such as veneer and solid wood
- Suitable for kitchen cabinets, bathroom furnishings, office and home furniture and especially table tops and interior doors

#### Test standards:

- DIN EN 71-3  
Safety for toys
- DIN 53160 parts 1 and 2  
Resistant to saliva and sweat
- DIN 68861 part 1, 1B  
Resistant to chemicals



General principle of how a simple roller coater functions (SLC)

# UV EM-870 DE-AIRING AGENT FOR UV VARNISHES

To Improve De-Foaming on Surfaces

## Properties

- Liquid de-foamer

### Important note:

- The use of too much de-airing agent leads to disturbances on the surface (formation of craters!)

## Application

- De-airing agent for all conventional UV varnish systems

## Product data

Art. No.	3788
Size of container	1 kg
Quantity required	0.1 – 0.5% is added to the UV varnish

# UV PI-871 PHOTOINITIATOR

To Increase the Reactivity of Conventional UV Varnishes

## Properties

- Increases the reactivity of UV varnishes

## Application

- Photoinitiator for all conventional non-white, UV varnishes

## Product data

Art. No.	3822
Size of container	1 kg
Quantity required	max. 2% is added to the UV varnish

# UV RV-872 REACTIVE THINNER

To Adjust the Viscosity of Conventional UV Varnishes

## Properties

- Thin-liquid reactive thinner
- Since reactive thinners are bound into the varnish film through chemical reaction, there is no emission of solvents

## Application

- For adjusting the viscosity of conventional UV varnishes

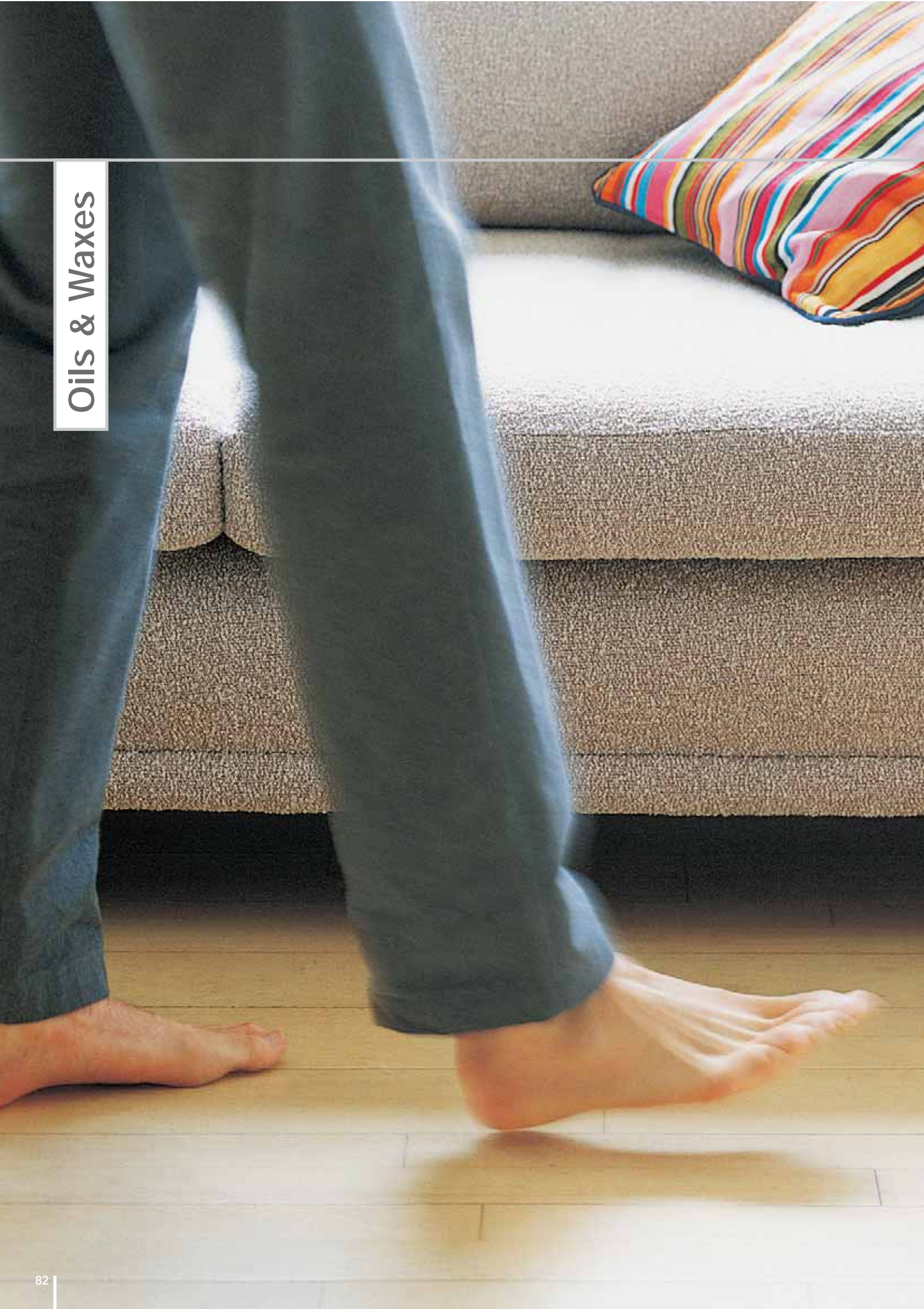
## Product data

Art. No.	3823
Size of container	10 kg
Quantity required	max. 5% is added to the UV varnish





## Oils & Waxes





# Aidol HARD WAX OIL

For Natural Looking Wood Surfaces

## Product data

Art. No./colour	0695/clear 0668/special colours
Size of containers	0.75 l, 2.5 l, 20 l
Application rate per working operation	approx. 10–50 ml/m <sup>2</sup> , depending on absorbency
Application	Wide brush, non-fraying cloth

## Properties

Aidol Hard Wax Oil is based on natural oils with lead-free dry substances. It protects the wood, leaving a natural look.

- Complies with the Deco Paint Directive
- Time saving and effective application
- Open pore, breathing active and mild odour
- Durable, soil repelling and hard wearing
- Can be subsequently re-treated, even in partial areas without any preparation

### Tips & Interesting Facts:

Textiles soiled with Aidol Hard Wax Oil (e.g. cloths, working clothes) may have a tendency to self-ignite so these should be stored in fire-proof waste containers and disposed of as soon as possible. As an alternative, the textiles can be moistened with water and hung up outdoors to dry.

## Application

- For solid wood furniture
- Parquet
- Stairs
- Cork floors
- Interior doors

### Test standards:

- DIN EN 71-3  
Safety for toys
- DIN 53160 parts 1 and 2  
Resistant to saliva and sweat
- DIN 68861 part 1, 1C  
Resistant to chemicals





## NOTES ON APPLICATION

### Aidol Hard Wax Oil on Different Substrates

#### Laid Wood and Cork Floors

These floors are sanded with a sanding machine (last sanding operation not finer than 100–120 grit). Aidol Hard Wax Oil is then massaged into the wood with a wide brush. A single disc machine with a white polishing pad is a great time saver for large areas. After drying overnight, a second coat is applied.

Intermediate sanding is not necessary; if desired, the surface can be lightly worked over with a single disc machine (beige pad).

#### Wood Stair Steps, Counter Tops, etc.

These elements are sanded for the last time with 120 grit sandpaper. Aidol Hard Wax Oil is applied with a wide brush and massaged in thoroughly. A white pad can also be used for application but no excess material should remain on the surface.

#### Furniture Surfaces, Smaller Wood Objects

These are sanded with 180 grit sandpaper. Aidol Hard Wax Oil is applied with a brush or non-fraying cloth.





## For All Surfaces

No excess material should remain on the surface – particularly not on non-absorbent areas; otherwise drying may be delayed. It is generally recommended to apply a second coat of Aidol Hard Wax Oil after drying overnight. The absorbency of the substrate is influenced by sanding. The finer the surface is sanded the less Aidol Hard Wax Oil is absorbed by the wood and less protection is achieved. Test compatibility and colour effect on a trial area.

## Coloured Versions

When oiling floors and furniture with a coloured Hard Wax Oil there are several things that you should take into consideration. Please ask for our information guide for coloured Aidol Hard Wax Oil!

## Notes on Safety

Textiles soiled with Aidol Hard Wax Oil (e.g. cloths, working clothes) may have a tendency to self-ignite so should be collected in fire-proof waste containers and disposed of. As an alternative, these textiles can be moistened with water and hung up outside to dry.

## Reinigung & Pflege

For regular mopping, we recommend our Aidol Hard Wax Polish which keeps stairs and floors in optimum condition.





## HWS-112 HARD WAX SEAL

Single Component, Solvent Based Sealant for an Especially Natural Look

### Properties

HWS-112 Hard Wax Seal is an especially natural looking alternative for refining surfaces. The cloth-matt surfaces have good resistance to mechanical and chemical loads. This sealant was especially developed for professional treatment of stair steps in a spraying application.

- Single component, solvent based: complies with the Deco Paint Directive
- Little tendency to form shiny areas
- Cloth matt with an especially natural look and feel
- Very good resistance to chemicals: DIN 68861, part 1, 1B
- Resistant to handcream
- High yielding

### Application

- For especially natural looking refinement of wood stairs
- Also suitable for other elements in interior areas
- Not suitable for treating bleached wood
- Applied by spraying

#### Test standards:

- DIN EN 71-3 Safety for toys
- DIN 53160 parts 1 and 2 Resistant to saliva and sweat
- DIN 68861 part 1, 1B Resistant to chemicals

### Product data

Art. No./colour	1826/clear (cloth matt) 1829/special colours		
Size of containers	5 l, 20 l		
Thinning	product is formulated ready to use		
Application rate per coat	approx. 2 x 60–80 ml/m <sup>2</sup>		
Application	sprayed or rolled with a short-pile roller (3–5 mm), solvent resistant pile in two layers		
	Cup gun	Airless	Airmix
Nozzles [mm]	1.5–1.8	0.23–0.28	0.23–0.28
Air pressure	2–3 bar	–	0.5–1.5 bar
Material pressure	–	60–80 bar	60–80 bar
Drying at 20°C, 65% relative humidity			
Dust dry after	approx. 60 min.		
Can be sanded and re-coated after	approx. 6 hours		
Stacked after	drying overnight		

# SUGGESTION FOR WORKING

## Remmers HWS-112 Hard Wax Seal (cloth matt)

### Suitable species of wood

Solid wood, thick veneer

### Sanding

180 grit, remove dust afterward

### 1<sup>st</sup> coat

**Attention:** Risk of ignition! Do not varnish in filter mats with varnish dust! Textiles soiled with Aidol HWS-112 Hard Wax Seal (e.g. cloths, working clothes) may have a tendency to self-ignite so collect in fire-proof waste containers and disposed of. As an alternative, these textiles can be moistened with water and hung up outdoors to dry.

### HWS-112 Hard Wax Seal cloth matt

Application rate approx. 60–80 ml/m<sup>2</sup>,  
dry overnight

Spray with a  
cup gun  
1.5–1.8 mm nozzle,  
air pressure 2–3 bar

Spray with  
airless / airmix  
0.23–0.28 mm nozzle,  
material pressure approx. 100 bar,  
air pressure 1.2 bar

### Intermediate sanding

80–220 grit, remove dust afterward

### 2<sup>nd</sup> coat

**Note:** Please remember the risk of self-ignition! By using Remmers Hard Wax Polish for maintenance, these high quality surfaces will remain in good condition and be protected from premature wear for a long time.

### HWS-112 Hard Wax Seal cloth matt

Application rate approx. 60–80 ml/m<sup>2</sup>,  
dry overnight

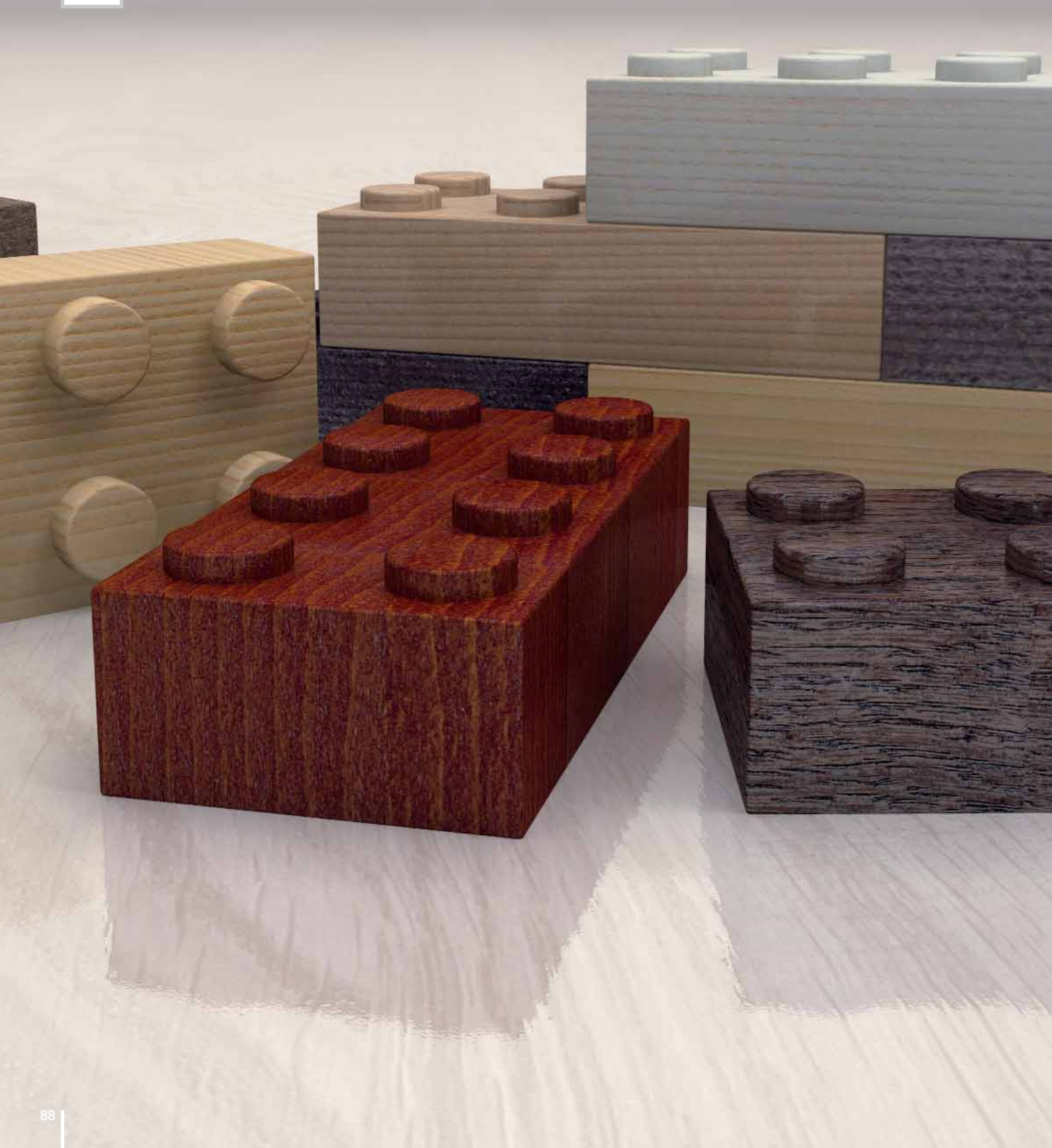
Spray with a  
cup gun  
1.5–1.8 mm nozzle,  
air pressure 2–3 bar

Spray with airless / airmix  
0.23–0.28 mm nozzle,  
material pressure approx. 100 bar,  
air pressure 1.2 bar

### Optimum drying conditions

- 20°C room temperature, at least 50% rel. humidity and a sufficient air exchange rate
- Lower room temperatures may impair film formation on the surface.
- Relative humidity that is too low may cause initial drying of the varnish film that is too fast; an insufficient air exchange rate delays initial drying and full cure.

# Stains







## THE REMMERS STAIN CONCEPT

### 3 – 4 Base Stains for an Unlimited Number of Shades of Stains

With the completely new and highly flexible Remmers Stain Concept there are now no limits to the shades of stains you can create – thanks to the individual kit principle for solvent based stains, Aqua Compact Stains as well as Positive and Wax Stains which functions as follows:

With just 3 – 4 different coloured base stains that you can intermix as you please and can also lighten if required, you have the possibility of creating the most different nuances in the colour of wood stains, especially coordinated to your species of wood.

For those who prefer a more colourful look, nuance concentrates can also be used which are exactly coordinated to your wood surface. These coloured shades of stains can put your wood into an entirely new, different light.

The objective of this kit is to allow individual shades of colours to be quickly and flexibly selected which can also be produced in small and medium size quantities and be reproduced at a later date as well – with little effort but the greatest precision.

And, of course, all of the stains\* can be varnished with Remmers NC, 2-component PUR and Aqua varnishes without any problem or treated with Aidol Hard Wax Oil.

- 3 – 4 base stains for creating the most different shades of colours
- Little effort but the greatest precision
- Fast and flexible selection of colour shades
- Efficient production of smaller and medium sized quantities
- Can be varnished with Remmers NC, PUR and Aqua varnishes as well as treated with Aidol Hard Wax Oil



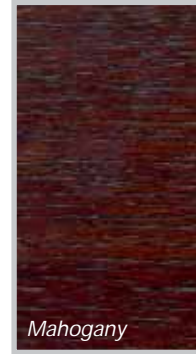
\* With the exception of wax stains

# THE REMMERS STAIN KIT

Solvent Based, Aqua Compact as Well as Positive and Wax Stains

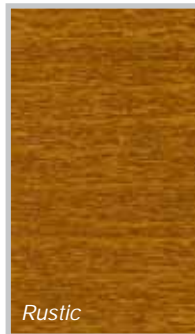
## Solvent Based Stains NC HB-005 Wood Stain on Oak

Concentrated  
base shades of colour



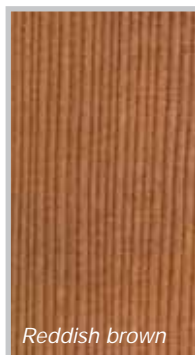
## Aqua KB-004 Compact Stain on Beech

Concentrated  
base shades of colour



## Aqua PB-006 Positive Stain and Aqua WB-002 Wax Stain on Spruce

Concentrated  
base shades of colour



\* This base colour stain is only available for Positive Stain



## THE WORLD OF THE REMMERS STAIN MIXING SYSTEM

All of the Details on the Highly Flexible Kit System

All details on the subject of solvent based stains, Aqua Compact Stains as well as Positive and Wax Stains are found in our new brochure, "THE REMMERS STAIN CONCEPT – a Highly Flexible System on a Kit Principle".

On 34 pages in total, we present our stain products and the concept of the kit principle behind it. You will find helpful suggestions for application and working as well as detailed product information and specifications. Real wood scans of different stain collections and colour worlds

will give you a brief overview of the possibilities offered with this kit from Remmers.

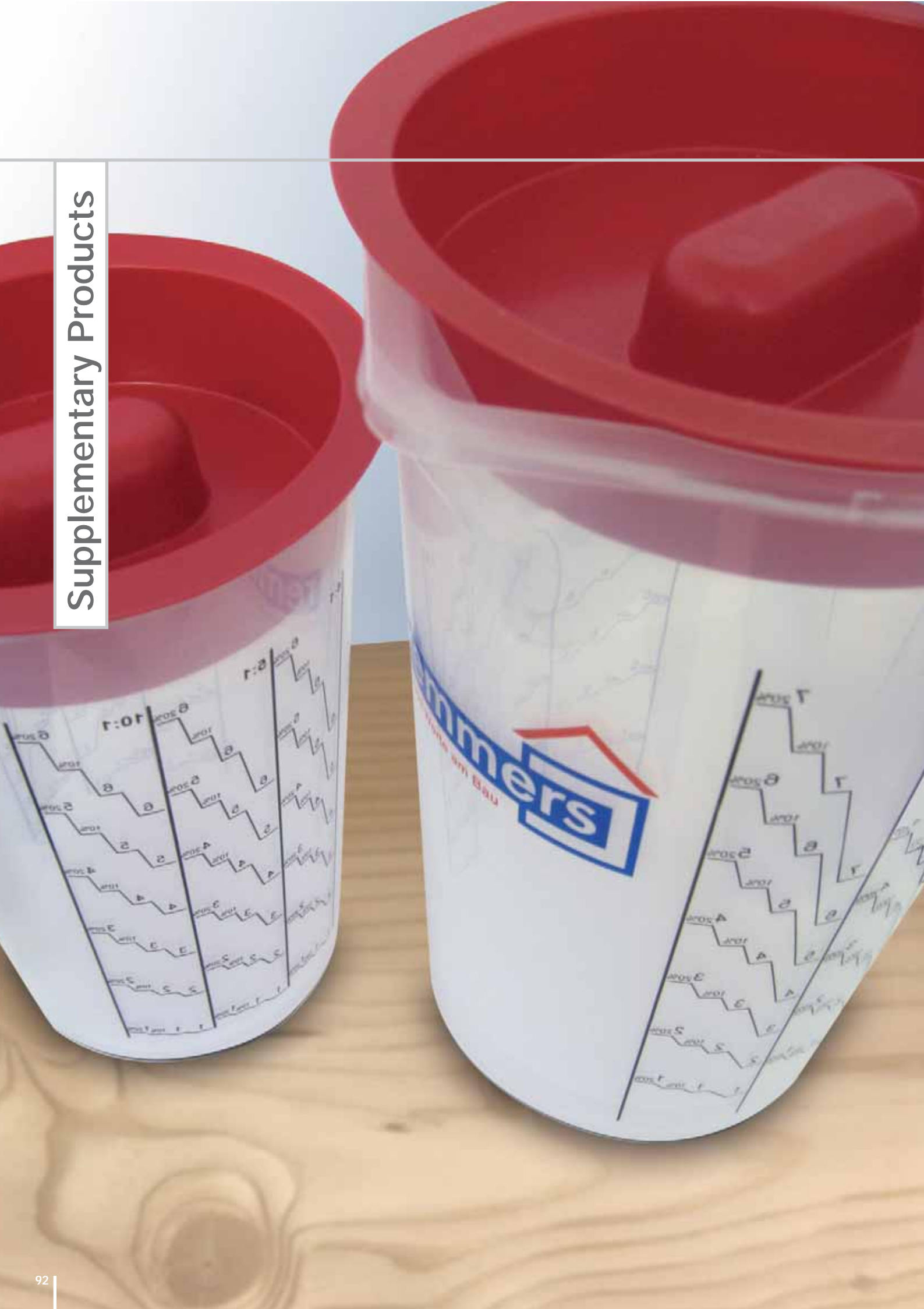
General rules for applying stains, tips and tricks in practice as well as a table for your stain formulas round off the brochure and provide support for selecting products, application and maintenance.

Along with the brochure, a collection with real wood is also available.



**Interested?** Upon request, we would be glad to send you a copy of the brochure on the subject of stain mixing systems. A PDF version can also be downloaded from our website at [www.remmers.de](http://www.remmers.de)

# Supplementary Products



# PATENT DISPERSER

For Working Aqua H-480 Hardener into Aqua Varnishes

## Product data

Art. No./ Size of container	474701 large (for containers > 5 l) 474702 small (for containers ≤ 5 l)
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## Properties

Optimum distribution in the varnish leads to better resistance of the varnish. This can be achieved by using the Remmers Patent Disperser. The disperser ensures effortless but intensive and very fine distribution of Aqua H-480 Hardener in the varnish. This allows the hardener to reach every linking point in the dispersion, forming an additional, dense network in the varnish film.

- Aqua H-480 Hardener is reliably worked into the varnish, foam-free
- The properties of the varnish are improved by finer distribution of the hardener

## Application

The Patent Disperser sucks the varnish up from the bottom so no air is drawn into the varnish. This prevents unnecessary foam.

# MIXING CUP SYSTEM FOR 2-COMPONENT VARNISHES

Simply Clever – the Cup in a Cup

## Product data

Art. No. for cup with 920 ml content	427001 exterior cup 427101 interior cup (à 75 cups) 427301 lid
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## Properties

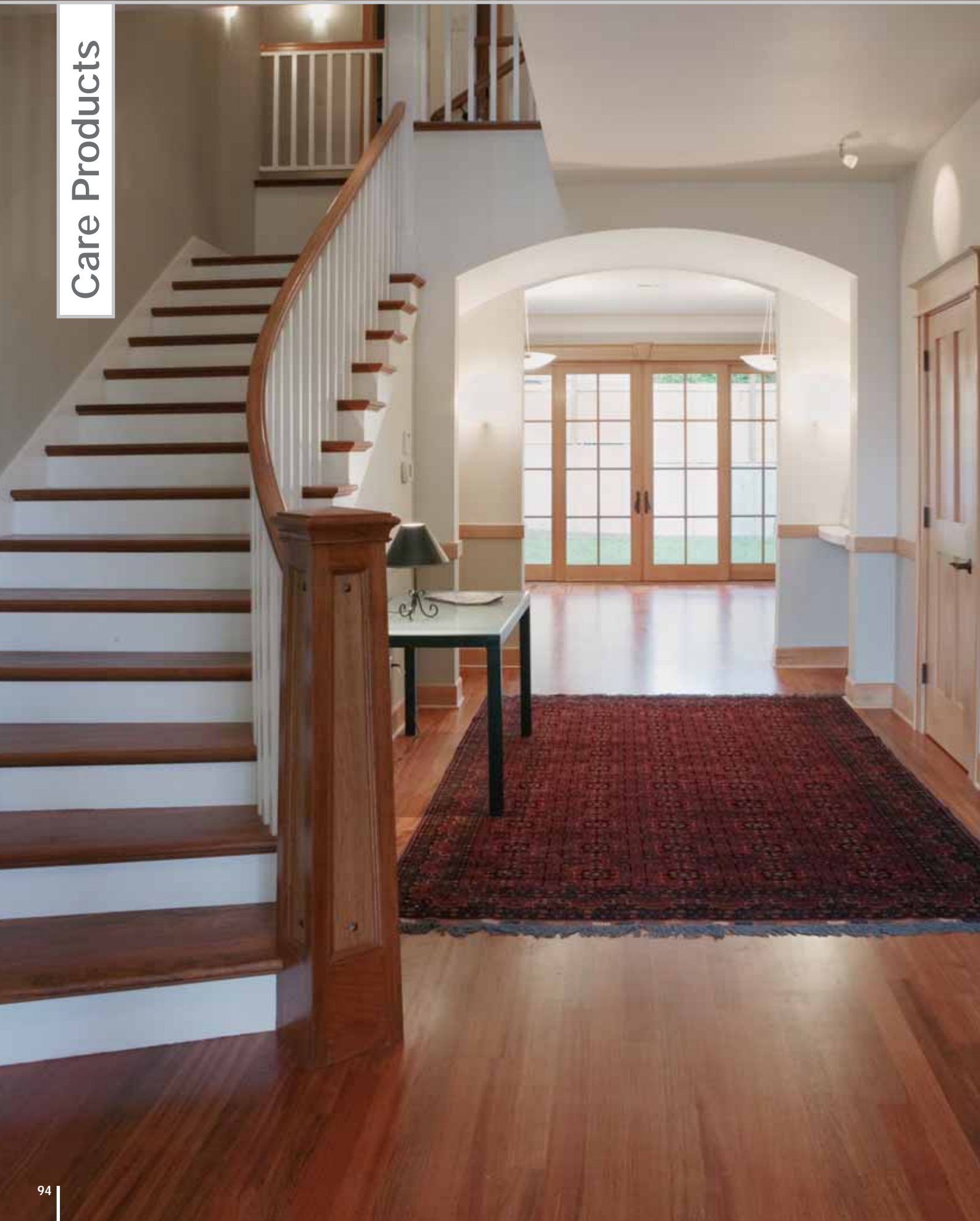
A clever system for mixing, pouring and storing 2-component varnishes.

- User-friendly handling
- No cleaning necessary
- No complicated calculations
- Practice-oriented use
- No leftover solvents
- No mixing errors

## Application

- For all 2-component varnish systems
- For Remmers 2-component PUR & Aqua Varnishes/Stains

Care Products



# Aidol STAIR & PARQUET FRESH

## Self-Shining Floor Care Product for Varnished Surfaces

### Artikeldaten

Colour	clear
Art. No.	2393
Size of container	1 l
Quantity required for 1 <sup>st</sup> time care	1 l is sufficient for approx. 25–30 m <sup>2</sup>
Quantity required for maintenance care	250 ml/10 l mop water

### Properties

Self-shining, water based, floor care product for varnished surfaces.

- Self-shining, i.e. it does not need to be polished
- Just one product for first time care and maintenance care
- Repells dust and dirt, making surfaces easy to maintain
- Slip resistant
- Protects the surface from premature wear

### Application

- For sealed wood floors
- For closed-pore varnished cork
- For PVC & linoleum
- For laminat & ready made parquet
- For natural & synthetic stone floors

# Aidol HARD WAX POLISH

## Milky, Water Based Care Product on a Wax Emulsion Base

### Product data

Art. No.	0687
Size of container	1 l
Quantity required for 1 <sup>st</sup> time care	1 l is sufficient for approx. 10–20 m <sup>2</sup>
Quantity required for maintenance care	250 ml/10 l mop water

### Application

Optimum results on surfaces treated with Aidol Hard Wax Oil.

- Parquet
- Stairs
- Batten floors

#### Tips & Interesting Facts:

Just one product for first time and maintenance care: Apply undiluted the first time it is used on oiled surfaces. The product even closes fine cracks. For regular maintenance the product is simply added to the mopping water. Surfaces are cleaned and maintained at the same time. When maintaining varnished surfaces in interior areas, we recommend the use of Aidol Stair & Parquet Fresh.

### Properties

Water based maintenance concentrate with high quality wax emulsions for oiled and waxed wood floors and wood stairs.

- Just one product for first time and maintenance care
- Forms a thin, protective film made of high quality waxes
- Protects surfaces from premature wear
- Can be polished after drying

722 / 02.10

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