

>Product description

FANTASTIC-CLEAR is a light fast and transparent acrylate-based multicoat lacquer. Its wide variety of application options and uncomplicated processing mean that **FANTASTIC-CLEAR** is superb as a **multicoat lacquer** on all common types of wood and in parallel as an excellent **finishing lacquer on FANTASTIC-COLOR**. Its **excellent adhesion properties** mean that **FANTASTIC-CLEAR** can also be used on bleached woods. A **good ability** to stay on vertical surfaces significantly reduces the risk of runs.

>Areas of application

FANTASTIC-CLEAR can be used in all areas of interior design and shopfitting, including in kitchens and bathrooms. Hardening can be adapted to be object- or process-oriented. Detailed information can be found under "Application hints" in this Technical Information. **FANTASTIC-CLEAR** is ideally matched as a top coat to complement **FANTASTIC-FILL** and **FANTASTIC-COLOR** in a complete colour coating.

>Surface Preparation

Surface preparation	Clean, dry wood, dependent upon wood type and method of application.
Substrate sanding grits from-to	150 - 400
Lacquer sanding (grit) from - to	280 - 400

>Finishing

Finishing	After sufficient drying and immediately after interim sanding with lacquer from the same product range.
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>Times

Usage time	8 h / 20 °C
Pot life	3 d / 20 °C
Drying	3 h / 20 °C
Stackable after	> 16 h / 20 °C
Complete drying	7 d / 20 °C

>Application

Application	Nozzle size in mm	Spray pressure in bar	Atomising pressure in bar
Spraying			
2C line			
Airless	0,23 - 0,28	100 -150	
Airless low pressure			
Air mix	0,23 - 0,28	60 - 100	2,0 - 2,5
Compressed air spraying	1,8 - 2,0	1,8 - 2,0	
other spraying methods			
Wiping with a cloth			
High-performance automatic spraying unit			
Automatic spray gun			

>Processing instructions

FANTASTIC-CLEAR can optionally be applied in a mixing ratio (by volume) of 5 : 1 with PU Hardener DR 4070. FANTASTIC-CLEAR dries to be slightly more glossy in this hardening. A more matt gloss level should be selected as necessary.

Hardening using PU Hardener DR 4076-0001 in a mixing ratio (by volume) of 5 : 1, after adding 5 % Glass lacquer additive EL 460-0025 to the lacquer components, enables direct coating on glass. The glass surface to be coated must first be properly cleaned using Cleaning thinner ZD 101.

This product must only be combined with other approved and technically suitable products when used as a flame retardant coating material for seagoing vessels according to the latest version of SOLAS 74/88 Reg. II-2/3, II-2/5 and II-2/6, IMO Resolution MSC.36(63)-(1994 HSC-Code) 7 and IMO Resolution MSC.97(73)-(2000 HSC-Code) 7.

The maximum application amount in wet film when using this product as a flame retardant coating material for seagoing vessels is 240 g/m². **This product is only suitable as a flame retardant coating for seagoing vessels when the default hardening is used, not the optional hardenings!**

>Technical data

Proportion of renewable raw materials %	0.5
Flow time (+/- 15 %)	30 s / DIN 53211 - 4 mm
Appearance	colourless
Density series kg/l	0.919 - 0.932
Yield per coat	6 - 9 m ² /l The spreading rate is heavily dependent on the type of application. The specifications relate to a liter of ready-for-use product, if necessary including hardener and thinner.
Form of delivery	fluid
Non-volatile content series %	23 - 25
VOC EU %	75 %
VOC FR	A+
Shelf life in weeks	52
Number of coats (max)	3
Amount per layer (minimum)	100 g/m ²
Amount per layer (max)	150 g/m ²
Total application volume	450 g/m ²
Mixing ratio (by volume)	10 : 1 PU Hardener DR 4071
Mixing ratio (gravimetric)	100 : 10 PU Hardener DR 4071

>Ordering information

Order number	Gloss level 60° (Gloss)	Gloss level	Container Size
DE 48770	0 - 3	dull matt	1 l, 5 l, 25 l
DE 48772	8 - 12	matt	1 l, 5 l, 25 l
DE 48774	18 - 23	silk matt	1 l, 5 l, 25 l
DE 48776	30 - 39	satin gloss	5 l, 25 l
DE 48777	40 - 59	satin gloss	1 l, 5 l, 25 l

>Hardeners

Order number	Product description	Container Size
DR 4071	PU Hardener	0.1 l, 0.5 l, 1 l, 2.5 l, 5 l, 15 l

>Thinners

Order number	Product description	Container Size
DV 490	PU Thinner	1 l, 5 l, 15 l, 25 l
DV 4900	PU Thinner	1 l, 5 l, 15 l, 25 l
DV 4935	PU Thinner	5 l, 15 l, 25 l

>Retarder

Order number	Product description	Container Size
DV 499	Universal retarder	1 l, 5 l, 10 l, 15 l, 25 l
DV 4909	PU Retarder	1 l, 5 l, 25 l

>Equipment cleaner

Order number	Product description	Container Size
RV 1	Cleaning thinner	5 l, 15 l, 25 l

>Cleaning agent and care product

Order number	Product description	Container Size
GR 1900	Cleaning agent	1 l, 2.5 l, 3 l, 25 l

>Particular instructions

FANTASTIC-CLEAR DE 4877x(gloss level) should not be mixed with the FANTASTIC-CLEAR ULTRAMATT DE 48770-0 range! Mixing these two lacquer systems may result in incompatibility reactions or alterations in the respective product properties.

Colour lacquers UNA-COLOR DB 4524x(gloss level)-(colour tone) and FANTASTIC-COLOR DB 4888x(gloss level)-(colour tone) can be used as glazing lacquers to tint FANTASTIC-CLEAR DE 4877x(gloss level) (**maximum addition 1.5 %**). Depending on the substrate material and desired surface, the following Hesse Basecoats can be used in combination with FANTASTIC-CLEAR: DG 434 / DG 4734, DG 417 / DG 4717-0005, DG 468-1 / DG 4768-0011 and DG 4750. FANTASTIC-CLEAR has been tested according to the standard test procedure American Society for Testing and Materials ASTM D7027-20 to determine the scratch resistance. The tested sample DE 48770 did not show any scratches at a load of 700 g.

"A risk assessment was undertaken according to Directive 2014/90/EU, Annex II, Section 3. This coating does not pose a physical risk to health nor a risk to the environment when cured and dried."

>Sample process

Natural beech heartwood sideboard for a conference room, matt

Wood sanding: 150 - 180 grit (dust removal)

Basecoat: 1 x 100 - 150 g/m² Hesse FANTASTIC-CLEAR DE 48772 (at 20 °C room temperature), mixing ratio (by volume) 10 : 1 with PU Hardener DR 4071 and addition of 20 - 25 % Thinner DV 4900 to the lacquer/hardener mixture

Intermediate drying: 2.5 h / 20 °C

Lacquer sanding: 280 - 320 grit (dust removal)

Top coat: 1 x 100 - 150 g/m² Hesse FANTASTIC-CLEAR DE 48772 (at 20 °C room temperature), mixing ratio (by volume) 10 : 1 with PU Hardener DR 4071 and addition of 20 - 25 % Thinner DV 4900 to the lacquer/hardener mixture

Packable: after at least 16 h / 20 °C

>General information

PU lacquers should not be applied and dried at material and room-temperatures below 18 °C and 40 % RH. Ideal values are: 20 - 25 °C, 50 - 65 % RH. Deviations will result in drying or hardening errors. In order to avoid adhesion problems, please sand the PU lacquered surfaces before applying fresh lacquer and apply lacquer to the sanded surfaces as soon as possible. Old lacquer and hardener mixtures affect the surface quality (adhesion/resistance). Freshly bleached substrates must undergo intermediate drying for at least 48 h at 20 °C before coating with suitable PU lacquers. If stored correctly (at least 20 °C room temperature), the final hardness of the coating is achieved after a week.







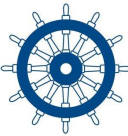


Please apply a test coat under real conditions!

Technical information

Hesse FANTASTIC-CLEAR DE 4877x(gloss level)

Mixing ratio (by volume): 10 : 1 PU Hardener DR 4071

>Particular properties and/or testing standards

Test standard / basis	Testing laboratory	Mark	Report	No.
Saliva and sweat resistance according to DIN 53160 Parts 1 and 2: no discolouration (Level 5)	HESSE			
DIN 68861-Part 1B (Furniture surfaces; Behaviour under chemical demands)	HESSE			
Formulation is free of: wood preservatives, toxic heavy metals, phthalate plasticizers, formaldehyde, CMR substances in Categories 1A + 1B and volatile aromatic and halogenated organic compounds.	HESSE			
Classification of fire behaviour under DIN EN 13501-1 on validated substrate materials	MPA-Stuttgart		Classification:	B-s1, d0 (veneered chip-board)
Classification of fire behaviour under DIN EN 13501-1 on validated substrate materials	MPA-Stuttgart		Classification:	C-s1, d0 (veneered MDF)
Toy safety DIN EN 71-3 (2014-12)	LGA		Test report	0003294037/30 AZ 344164
EC type examination certificate (module B); coating agent for seagoing vessels according to IMO Resolution MSC.307(88)-(FTP-Code 2010).	Trade association transport and traffic; Ship Safety Division, Hamburg		Approval No. U.S. Coast Guard Approval No.	116532-00 164.112/ EC0736/ 116532-00
Flame retardant to B1 according to DIN 4102; on suitable substrates.	MPA-Stuttgart		Test certificate no. certificate of compliance	P-BWU03-I-16.5.431 ÜZ-BWU03-I 16.2.879
TEST REPORT ON SCRATCH RESISTANCE ASTM D7027-20	WIMPEY LABORATORIES L.L.C.		Lab Report No.	WD-R-211108-0487 WD-R-211108-0488

Our technical information is continually adapted to keep up to date with the latest technology and statutory regulations. The indicated values are no specification, but typical product data. The latest version is always available online at www.hesse-lignal.de or talk to your local account manager. This information is for advice and is based on the best knowledge available and careful research in line with the current state of the art. This information cannot be held as legally binding. We also refer you to our terms and conditions of business. Safety data sheet is provided in accordance with EC regulation no. 1907/2006.