Technical information

Hesse HYDRO-PU Brillant primer HDG 5407

Mixing ratio (by volume): 5 : 1 HYDRO Hardener HDR 5091

Hesse Lignal
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>Product description

Hesse HYDRO-PUR Brilliant base is a two-component acrylic base coat. This colourless product can be diluted with water and features good resistances against chemical and mechanical demands. Our base coat for open- to closed pore structures is also characterised by its outstanding accentuation of the wood and its tendency not to run beneath high gloss.

>Areas of application

For all interior fixtures and fittings, including high demand areas such as kitchens and bathrooms.
Ideal for heavily stressed surfaces and woods rich in extractive (such as ash, oak, pine, etc.). Also for stairs and handrails. Can also be used on bleached surfaces (that are adequately dry).

>Surface Preparation

Surface preparation	Clean, dry wood, free of oil, grease, wax and silicones. Sanded as prescribed and free from sanding dust.
Substrate sanding grits from-to	120 - 220
Lacquer sanding (grit) from - to	280 - 600
Comments on sanding	The quality and uniformity of the wood / substrate and of the lacquer sanding are crucial to the final surface finish. After sanding, remove dust as prescribed.

>Finishing

Finishing	After drying and lacquer sanding, can be used with suitable Hesse HYDRO systems.

>Times

Usage time	2 h / 20 °C
Working Temperature Range	18 - 22 °C
conditions of transport	10 - 30 °C
Pot life	2 h / 20 °C
Drying	4 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
Spraying		
Compressed air spraying	1,5 - 2,0	2,5 - 4

>Processing instructions

Add hardener slowly whilst stirring. Adjust the spray viscosity with water if required. Maximum additive volume 5 %. The hardener must always be added before thinning! Never store product mixed with hardener in closed containers. Recoatability: with itself following proper sanding. Clean tools with water. For removal of dried lacquer residues use Hesse HYDRO Cleaning agent HV 6917. In case of combined coatings (HYDRO- and solvent based lacquers) rinse application tools with Hesse HYDRO Reversing agent HV 6904.

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>Technical data

Flow time (+/- 15 %)	40 s / DIN 53211 - 4 mm
Appearance	colourless
Decopaint basis	WB
Decopaint category	J
Density series kg/l	1.027
Yield per coat	7 - 10 m²/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 %	29
VOC EU %	10 %
VOC FR	A+
Working Temperature Range	18 - 22 °C
Storage temperature	16 - 30 °C
Shelf life in weeks	52
conditions of transport	10 - 30 °C
Working temperature	20 °C
Number of coats (max)	3
Amount per layer (minimum)	100 g/m²
Amount per layer (max)	150 g/m²
Total application volume	450 g/m²
Mixing ratio (by volume)	5 : 1 HYDRO Hardener HDR 5091
Mixing ratio (gravimetric)	100 : 21 HYDRO Hardener HDR 5091

>Ordering information

Order number	Gloss level 60° (Gloss)	Container Size
HDG 5407	-	5 l, 25 l

>Hardeners

Order number	Product description	Container Size
HDR 5091	HYDRO Hardener	0.5 l, 1 l, 1.5 kg, 2.5 l, 5 l, 25 l

>Equipment cleaner

Order number	Product description	Container Size
HV 6904	HYDRO Reversing agent	0.25 l, 1 l, 5 l, 25 l
HV 6917	HYDRO Cleaning agent	1 l, 5 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

Do not sand through this product! Another lacquer coat can be applied on top after sufficient drying time and proper sanding, for instance using HDE 5400x(gloss level) or HDE 54799.
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 130 g/m².
“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.”

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>Sample process

Building construction, high-gloss walnut Basecoat: 2 x 100 - 120 g/m², Hesse HYDRO-PU Brilliant primer HDG 5407, mixing ratio (by volume) 5 : 1 with HYDRO-PUR Hardener HDR 5091. Intermediate drying: at least 4 h / 20 °C, better 16 h / 20 °C room temperature and with adequate air circulation. Smoothing grit 320 - 400 with subsequent dust removal. Basecoat: 2 x 100 - 150 g/m², Hesse HYDRO-PUR Brilliant primer HDG 5407, mixing ratio (by volume) 5 : 1 with HYDRO-PUR Hardener HDR 5091. Intermediate drying: at least 16 h / 20 °C room temperature and with adequate air circulation. Intermediate sanding: grit 320 - 400 with subsequent dust removal; Sanding of the final priming coat: grit 400 - 600 with subsequent dust removal. Top coat: 2 x 100 - 120 g/m² Hesse HYDRO-PUR Brilliant lacquer HDE 54799, mixing ratio (by volume) 5 : 1 with HYDRO-PUR Hardener HDR 5091, thinner: 20 % water. Intermediate drying: at least 3 - 4 h / 20 °C room temperature and with adequate air circulation. Packable/polishing: after at least 72 h / 20 °C room temperature and with adequate air circulation. Final treatment: see special Technical Information on "Polishing/buffing"

>General information

When working with HYDRO materials, parts that come into contact with the material must be made from stainless steel. The moisture content should be between 8 - 12 %. Do not apply or dry HYDRO lacquers at material or room temperatures below 18 °C. The ideal humidity for application lies between 55 and 65 %. During the lacquering process, a humidity level that is too low leads to surface defects (such as shrink cracks, etc.). Excessive humidity during the drying phase may drastically lengthen the drying time! In order to avoid adhesion problems, please sand the lacquered surfaces freshly before coating and apply lacquer to the sanded surfaces as soon as possible. When applied to foils, etc., please use a sample coating on the respective substrate to check the adhesion! The ideal complete hardening of lacquered surfaces that have been flashed off is reached at temperatures over 20 °C up to no more than 40 °C. Adequate, draft-free air exchange must be assured. The complete hardening of the lacquer will be reached after one week of proper storage (at least 20 °C room temperature). Woods containing large amounts of natural oils, such as teak, can negatively influence adhesion under certain circumstances. Water-soluble wood ingredients such those in ash and tannins in woods such as oak may cause colour changes and discolourations in the coating. We recommend that you always conduct a sample lacquering to evaluate the colour effect, adhesion and drying process under real conditions!

>Particular properties and/or testing standards

Test standard / basis	Testing laboratory	Mark	Report	No.
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.	116513-00 164.112/ EC0736/116513-00
Product meets the requirements of solvent based paints and coatings regulation - ChemVOCFarbV (German ordinance on solvent-based paints and varnishes) - according to the national implementation of 2004/42/EG ("Decopaint Directive ").	HESSE	ChemVoC FarbV Decopaint fähig		