

Technical information

Hesse PERFECT-BASE HDG 5407

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



Product description

PERFECT-BASE HDG 5407 is a two-component acrylic basecoat. This clear product is water-dilutable and features good resistance against both 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 superb stability 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).

Area of application

- Internal fit-out
- Kitchen and bathroom
- Furniture
- The fitting out of ship interiors
- Special applications
- Doors
- Stairs

Substrate material

- Dark, fine pored hardwood
- dark deciduous woods with coarse pores
- light deciduous woods with fine pores
- light deciduous woods with coarse pores

Surface Preparation

Surface preparation




Clean, dry wood, free of oil, grease, wax and silicones. Sanded as prescribed and free from sanding dust.

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.

Application

Application	Spray nozzle size	Spray pressure	Atomizing pressure
2C line			
Airless	 0,23 - 0,38 mm	100 - 120 bar	
Airless low pressure			
Airmix	 0,23 - 0,38 mm	60 - 100 bar	1,5 - 2,5 bar
Compressed air spraying	 1,5 - 2 mm	2,5 - 4 bar	

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Times

Drying

 4 h / 20 °C

Complete drying

 7 d / 20 °C

Finishing

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

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.

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 PERFECT-TOP 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 Reg. II-2/3, II-2/5, II-2/6 and X/3, as amended, IMO Resolution MSC.36(63)-(1994 HSC-Code) 7, IMO Resolution MSC.97(73)-(2000 HSC-Code) 7, IMO MSC/Circ. 1120. 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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Flow time (+/- 15%)		40 s / DIN4
Proportion of renewable raw materi-		0 %
Non-volatile proportion		28.9 %
VOC FR		A+
conditions of transport		10 - 30 °C
Shelf life in weeks		52
Storage temperature		10 - 30 °C
Working Temperature Range		18 - 22 °C
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)		5 : 1 HYDRO Hardener HDR 5091
Mixing information (gravimetric)		100 : 21 HYDRO Hardener HDR 5091

Particular properties / testing standards

Sign	Product standard / basis
	Quality Assurance System Certificate (Module D); Directive 2014/90/EU (Marine Equipment Directive)
	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 ("Deco-paint Directive").
	Flame retardant to Class A under ASTM E84-16

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Sample process

Contract installation, high gloss walnut

Basecoat: 2 x 100 - 120 g/m² PERFECT-BASE HDG 5407, mixing ratio (by volume) 5 : 1 with HYDRO Hardener HDR 5091.

Intermediate drying: at least 4 h / 20 °C, preferably 16 h / 20 °C room temperature and with adequate air circulation.

Smoothing: 320 - 400 grit with subsequent dust removal.

Basecoat: 2 x 100 - 150 g/m² PERFECT-BASE HDG 5407, mixing ratio (by volume) 5 : 1 with HYDRO Hardener HDR 5091.

Intermediate drying: at least 16 h / 20 °C room temperature and with adequate air circulation.

Lacquer sanding: 320 - 400 grit with subsequent dust removal; sanding of the final basecoat: 400 - 600 grit with subsequent dust removal.

Top coat: 2 x 100 - 120 g/m² Hesse HYDRO-PUR HDE 54799, mixing ratio (by volume) 5 : 1 with HYDRO Hardener HDR 5091 and thinned with 20 % water.

Intermediate drying: at least 3 - 4 h / 20 °C room temperature and with adequate air circulation.

Packable/ready for polishing: after at least 72 h / 20 °C room temperature and with adequate air circulation.

Final treatment: see special technical information on "Polishing/buffing"

Ordering information

Order number	Colour tone	Gloss level 60° (Gloss +/-5)	Gloss level
HDG 5407			

Accessories

	Order number	Product description
hardeners	HDR 5091	HYDRO Hardener
Equipment cleaner	HV 6904	HYDRO Reversing agent
	HV 6917	HYDRO Cleaning agent
	Water	

General instructions on workmanship

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!

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. Material safety data sheet is provided in accordance with EC regulation no. 1907/2006.

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