Technical information

Hesse PERFECT-FILL HDP 5650-(colour tone)

Mixing ratio (by volume): 8 : 1 HYDRO Hardener HDR 5091

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Product description

Our PERFECT-FILL HDP 5650-(colour) has been developed as the preferred system filler for combination with PERFECT-COLOR HDB 5434x(gloss level)-(colour tone). Its ease of processing and wide area of application, including its suitability for surfaces subject to heavy wear and in damp locations and the like, make it a universal filler throughout interiors. Flame retardant according to IMO and DIN EN 13501-1. PERFECT-FILL can be sanded by machine and can be recoated using all suitable Hesse lacquer systems.

Areas of application

For all interior designs, ideal for heavily used surfaces such as in kitchens, bathrooms and offices. And throughout residential settings, for instance for tables and sideboards; on a wide selection of wood species, on plywood, MDF, and on the edges of MDF. Also for stairs and handrails.

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
- MDF
- suitably pre-primed
- Melamine foil
- Paper foil

Surface Preparation

Surface preparation	Clean, well-seasoned wood, or clean, suitable MDF or plywood base, free from oil, grease, wax and silicones. Sanded as prescribed and free from sanding dust. Depending on the kind of wood and the desired surface effect: graduated raw wood sanding with grit size 120 - 220 and subsequent dedusting. The quality of the wood sanding is a decisive factor for the quality of the final surface. For foil substrates: suitable foil: sanding with grit size 320 - 400 and subsequent dedusting and degreasing, if necessary. The foil quality and the quality of the foil sanding are decisive factors for the quality of the final surface.
Substrate sanding grits	120 - 400
Lacquer sanding grit	280 - 400

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Application

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

Times

Pot life	2 h / 20 °C
Drying	5 h / 20 °C
Complete drying	7 d / 20 °C

Finishing

Finishing	Overcoatability: can be recoated after sufficient drying and intermediate sanding using the likes of COOL-COLOR HB 65285-(colour tone) or PERFECT-COLOR HDB 54345-(colour tone). Can also be coated with commonly used HYDRO and PU coloured lacquers and with most standard paints. (Test coat required!)

Processing instructions

Add the hardener in a slow stream while stirring. Then add water as necessary to adjust the spray viscosity. Maximum added quantity 5 %. The hardener must always be added before dilution! Never store any material mixed with hardener in closed packaging.
The processing time or pot life of PERFECT-FILL can as necessary be extended to around 4 h / 20° C by adding circa 15 % water or circa 5 % Optimizer HZ 70. The resulting lower flow time and alteration in rheology needs to be taken into account.
Subsequent coating: after sufficient drying and intermediate sanding, apply another coat of the same product or suitable HYDRO or PU materials as required. Use water to clean work tools. Use Hesse HYDRO Cleaning agent HV 6917 to remove any dried lacquer residues. Rinse out combined application devices (HYDRO and solvent lacquers) using Hesse HYDRO Reversing agent HV 6904.
When directly coating cleaned or sanded foils, please apply a test coat to check the adhesion!
Adding up to **5 %** of PERFECT-COLOR Colour lacquer or our HYDRO Colour pastes can as necessary be used to tint PERFECT-FILL in **pastel** shades.
Please note that this can impact the rheology, covering/filling power and sanding/polishing.

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Particular instructions

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 150 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."

Technical data

Flow time (+/- 15%)	75 s / DIN4
Yield per coat	7 - 14 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.
Giscode	W3/DD+
Proportion of renewable raw materi-	0 %
Non-volatile proportion	57.4 - 60.3 %
VOC FR	C
conditions of transport	10 - 30 °C
Shelf life in weeks	26
Storage temperature	10 - 30 °C
Working Temperature Range	18 - 22 °C
Number of coats (max)	3
Amount per layer (minimum)	100 g/m²
Amount per layer (max)	200 g/m²
Total application volume	600 g/m²
Mixing ratio (by volume)	8 : 1 HYDRO Hardener HDR 5091
Mixing information (gravimetric)	100 : 10 HYDRO Hardener HDR 5091

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Particular properties / testing standards

Sign	Product standard / basis	Sign	Product standard / basis
	Quality Assurance System Certificate (Module D); Directive 2014/90/EU (Marine Equipment Directive)		Classification of fire behaviour under DIN EN 13501-1 on validated substrate materials
	Product meets the requirements of solvent based paints and coatings regulation - ChemVOCFarbV (German ordinance on solvent-based paints and		Construction book registered

Sample process

Substrate sanding: around 220 - 280 grit with subsequent dust removal.
Basecoat: 2 x 130 - 150 g/m² PERFECT-FILL HDP 5650-9343, mixing ratio (by volume) 8 : 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.
Intermediate sanding: graduated 240 - 320 grit with subsequent dust removal.
Top coat: 1 x 110 - 130 g/m² HYDRO-PU RESISTCOLOR HDB 54345-9010, mixing ratio (by volume) 10 : 1 with HYDRO Hardener HDR 5091.
Packable: after drying for 16 h / 20 °C room temperature and with adequate air circulation.

Ordering information

Order number	Colour tone	Gloss level 60° (Gloss +/-5)	Gloss level
HDP 5650-9343	WEISS		

Accessories

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

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General instructions on workmanship

With MDF coatings, you can avoid painting faults and edge breaks if you observe the following: Selection of a suitable MDF quality for the area of application, see manufacturer data on EU standard EN 622-5, pt. 4 Test method EN 317 (requirements on thickness swelling). Ideal panel moisture 5 - 7 %. If possible coat the MDF all around, the backs should at least receive a clear coating. Avoid sharp edges and cutaways, round-off wherever possible. Coat edges and cutaways 2x with primers, do not sand through, if need be, prime again. Thick boards that have been created by gluing together several thinner boards are, due to the variance in tension, susceptible to edge ridging. It is better to select a single MDF board of the appropriate thickness. Panels that have been glued together should always be sanded flat at the edges and colourlessly pre-insulated. Any water introduced by gluing must be allowed to evaporate prior to coating. Store primer-coated surfaces in an air conditioned location and apply the final coat in a timely manner.
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!

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