Hempel's Light Primer 45551

Product characteristics

Description
Hempel's Light Primer is a two-component, epoxy solvent based primer and undercoat. Helps prevent osmotic blistering in glass fibre. Protects against general corrosion.

Recommended use
Suitable on glass fibre, steel, aluminium and plywood. For interior and exterior use above and below the waterline. Ideal for protection of keels and rudders.

Service temperature:
- Minimum, recommended by Hempel for dry exposure: -50°C [-58°F].

Product safety

Flash point 28°C [83°F]

VOC content mixed product

Legislation	Value
EU	434 g/L [3.62 lb/US gal]

VOC values may vary with shade, please consult the Safety Data Sheet, section 9.

Handling
Handle with care. Before and during use, observe safety labels on packaging and paint containers and follow all local and national safety regulations. Always consult Hempel's Safety Data Sheet for this product along with the Product Data Sheet.

Product data

Product code: 45551

Product components: Base 45559 | Curing Agent 95360

Standard shade / code: Off white 11630

Gloss: Semi-gloss

Volume solids: 49 ± 2%

Specific gravity: 1.3 kg/L [11 lb/US gal]

Reference dry film thickness: 60 micron [2.4 mils]

Surface preparation

Cleanliness
- Remove oil, grease and other contaminants by suitable detergent cleaning.

New build:
- Uncoated surface: Sand and remove all dust.
- Plywood: Seal the dry, clean surface with suitable wood sealer.
- Steel: Remove salt and other contaminants by (high pressure) fresh water cleaning. Remove all rust and loose material by abrasive blasting or power tool cleaning. Dust off residues.
- Stainless steel, aluminium and other non ferric metals and alloys: use non-metallic blast media (corundum, garnet, etc.).

Maintenance and Repair
- Previously coated surface: Abrade, clean and dry the surface.
- Spot repair and sand to obtain a uniform surface profile.
- The surface must be dry and clean prior to application.

Application

Mixing ratio
Base 45559 : Curing Agent 95360
(2 : 1 by volume)

Stir the Base, add Curing Agent and mix well. Allow mixed paint to rest for several minutes before use to allow air bubbles to escape.

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Thinner
Hempel's Thinner 845 08451

Cleaner
Hempel's Thinner 845 08451

Pot life

Product temperature	20°C [68°F]
Pot life (spray)	2 hours
Pot life (brush)	6 hours

Application method

Tool	Thinning max vol.	Application parameters
Roller	20%	-
Brush	20%	-
Airless spray	5%	Nozzle pressure: 175 bar [2500 psi] Nozzle orifice: 0.019-0.023"
Paint pad	20%	-

Do not dilute the components separately - only the mixture. Lower paint temperatures may require extra thinning, which will result in lower film build and slower drying. The product can be applied by spray. Contact Hempel for more information. Spray data are indicative and subject to adjustment. Pressure is for a material temperature of 20°C [68°F].

Film thickness

	Recommended
Dry film thickness	60 micron [2.4 mils]
Wet film thickness	122 micron [4.9 mils]
Theoretical spreading rate	8.2 m²/L [334 sq ft/US gal]

Product may be specified in another film thickness than indicated depending on purpose and area of use. This will alter spreading rate, drying and curing time and overcoating interval.

Application conditions
- Surface temperature must be above 10°C [50°F] during application and curing.

Relative Humidity:
- Relative humidity must be below 85% during drying and curing.

Application remarks
- Prime porous surfaces with first coat of the product thinned with specified Hempel's Thinner: max 20%.
- Uncoated surfaces below waterline: Apply 3-5 coats to obtain recommended film thickness.
- Epoxy system for aluminium substrates must have a minimum total dry film thickness of 300 micron.
- Uncoated surfaces above waterline: Apply 2 coats to obtain recommended film thickness.
- Previously coated surface: Apply 1 full coat undiluted.
- Overcoat with specified Hempel's primer/tiecoat and chosen topcoat/antifouling.
- Overcoat two component products with a single component product whilst the surface is almost dry but has a slight tacky feel.

Drying and overcoating

Product compatibility
- Previous coat: Recommended product is: Hempel's Sealer 05991 (for plywood)
- Subsequent coat: Recommended products are: Hempel's Underwater Primer, Hempel's Antifouling, Hempel's Silic One Tiecoat, Hempel's Profair, Hempel's Profiller, Hempel's Epoxy Filler, Hempel's Non-Slip Deck Coating

Drying time

Surface temperature		10°C [50°F]	20°C [68°F]
Touch dry	hours	6	3
Hard dry	hours	12	6
Fully cured	days	14	7
Ready to sand	hours	-	48

Determined for dry film thickness 60 micron [2.4 mils] at standard conditions, see Hempel's Explanatory Notes for details.

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Overcoating

Hempel's specification supersedes any guidelines indicated in the overcoating table

Quality name		10°C [50°F]	20°C [68°F]
Immersion			
Hempel's Light Primer 45551	Min	9 h	4½ h
	Max	60 d	30 d
Hempel's Underwater Primer 26030	Min	2 h	65 min
	Max	8 h	4 h
Hempel's Silic One Tiecoat 27450	Min	4 h	2 h
	Max	8 h	4 h
Atmospheric severe			
Hempel's Light Primer 45551	Min	9 h	4½ h
	Max	60 d	30 d
Hempel's Underwater Primer 26030	Min	2 h	65 min
	Max	8 h	4 h
Hempel's Non-Slip Deck Coating	Min	-	-
	Max	-	-

Overcoating times are indicative for products of the same generic chemistry when applied at the recommended DFT.

Drying conditions

- To obtain the drying time stated, it is important to maintain sufficient ventilation during application, drying and curing.
- Condensation on the freshly applied coating should be avoided.

Overcoating details

- If the maximum overcoating interval is exceeded, roughening of the surface is necessary to ensure intercoat adhesion.

Other remarks

- The surface must be clean before overcoating.

Storage

Shelf life

Ambient temperature	25°C [77°F]
Base	36 months
Curing Agent	36 months

Shelf life from date of production, when stored in original, unopened containers. Thereafter, the product quality must be re-inspected. Storage at elevated temperatures may reduce shelf life. The shelf life printed on product labels is based on regional climate conditions. For advice, please consult Hempel.

Storage conditions

- The curing agent is sensitive to moisture. Store in a dry place and keep the can tightly closed until use.
- Temperature must not go below 5°C [41°F] during transport and storage.
- The product must be stored in accordance with Safety Data Sheet, label and local regulations. Keep the containers in a dry, shaded, cool, well-ventilated space and away from sources of heat and ignition. Containers must be kept tightly closed. Handle with care.

Carbon Footprint

Dry film thickness	1 µm	1 mil
GWP (Global Warming Potential)	10.9 g CO_2e/m²	0.057 lb CO_2e/ft²

The carbon footprint is for 1 square meter / square foot of surface area with a dry film thickness of 1 micron / mil.

The scope includes raw materials, in-bound transport to the Hempel factory, Hempel manufacturing processes, and any Volatile Organic Compounds emitted during and after the application of the product.

It is calculated based on the standard shade defined in this PDS. Values may vary with shade.

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Additional documents

Additional information is available at the Knowledge Center: https://www.hempel.com/knowledge-center . The documents below can be found in the Technical Guidelines section: https://www.hempel.com/knowledge-center/technical-guidelines or at the Hempel website.

- Explanatory Notes for Product Data Sheet.
- Application methods.

This Product Data Sheet ("**PDS**") relates to the supplied product ("**Product**") and is subject to updating from time-to-time. Accordingly, the buyer/applicator should have regard to the PDS supplied together with the relevant batch of the Product (and not an earlier version). In addition to the PDS, the buyer/applicator may receive some or all of the following specifications, statements and/or guidelines as listed below or as are available from the Hempel website under 'Products' at www.hempel.com (the "**Additional documents**"):

No.	Document description	Location/comments
1.	Technical Statement	One-off specific advice provided on request for specific projects
2.	Specification	Only issued for specific projects
3.	PDS	This document
4.	Explanatory Notes to the PDS	Available at www.hempel.com and contain relevant information about the Product testing parameters
5.	Application Instruction	Where available, at www.hempel.com
6.	Generic technical guidelines (e.g. on application and surface preparation)	Where available, at www.hempel.com

In the event of a conflict of information between the PDS and the Additional documents, the order of priority of information shall be in the order as set out above. In such event you should also contact your representative at Hempel for clarification. Furthermore, the buyer/applicator must have full regard to the relevant Safety Data Sheet provided with each Product and which can also be downloaded from www.hempel.com.

Hempel shall not be liable for defects where the application of the Product has not been made fully in accordance with the recommendations and requirements set out in the relevant PDS and the Additional Documents. The information and terms of this disclaimer apply to this PDS, the Additional documents and any other documents supplied by Hempel in respect of the Product. In addition, the Product is supplied and all technical assistance is given subject to Hempel's General Conditions of Sale, Delivery and Service, unless otherwise expressly agreed in writing.