Hempel's High Protect II

Product characteristics

Description
Hempel's High Protect II is a two component, solvent free, high-build epoxy for osmosis protection and treatment. Easy to apply with good tolerance to environmental conditions. Forms a hard, tough, water-resistant coating.

Recommended use
For use as a primer below the waterline on boats made of glass fibre or steel. Prevention and repair of osmotic blistering in the glass fibre both above and below the waterline.

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

Features
- Can be a substitute for Hempel's Light Primer where solvent emissions are a consideration.

Product safety

Flash point 129°C [264°F]

VOC content mixed product

Legislation	Value
EU	35 g/L [0.29 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.

For professional use only.

Product data

Product code: 35780

Product components: Base 35789 | Curing Agent 95078

Standard shade* / code: Grey 13700

Gloss: High-gloss

Volume solids: 99 ± 1%

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

Reference dry film thickness: 150 micron [6.0 mils]

Surface preparation

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

New build:
- Uncoated surface: Sand and remove all dust.
- 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.

Maintenance and Repair
- Previously coated surface: Abrade, clean and dry the surface.

Application

Mixing ratio
Base 35789 : Curing Agent 95078
(3 : 2 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.

Thinner
No thinning

* Other shades are available, please contact your local Hempel representative.

Hempel's High Protect II

Pot life

Product temperature	10°C [50°F]	20°C [68°F]
Pot life	60 min	45 min

Application method

Tool	Thinning max vol.	Application parameters
Brush	No thinning	-
Roller	No thinning	-

Do not use thinner in conjunction with this product. The product can be applied by spray. Contact Hempel for more information.

Film thickness

	Recommended
Dry film thickness	150 micron [6.0 mils]
Wet film thickness	152 micron [6.1 mils]
Theoretical spreading rate	6.6 m²/L [269 sq ft/US gal]

It is vital that the specified minimum dry film thickness is uniformly achieved. Ensure that the film is free from pores. It is recommended to level out roller marks with a brush.

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

- For protection: Glass fibre: Ensure new gelcoats are thoroughly cleaned and on previously coated surfaces, ensure all old paint layers are removed.
- Apply 1 coat at 150 micron. Allow to dry. Fill and fair where necessary. Apply 1 coat at 150 micron.
- Steel: Apply 3 coats at 150 micron dry film thickness each.
- For treatment: Remove gelcoat and allow hull to dry out.
- Apply 1 coat at 150 micron. Allow to dry. Fill and fair where necessary. Apply 3 coats at 150 micron each.
- Overcoat with specified Hempel's primer/tiecoat and chosen topcoat/antifouling.

Drying and overcoating

Product compatibility

- Previous coat: None.
- Subsequent coat: Recommended products are:

Drying time

Surface temperature		10°C [50°F]	20°C [68°F]
Touch dry	hours	24	12
Ready to sand	hours	-	24

Determined for dry film thickness 150 micron [6.0 mils] at standard conditions, see Hempel's Explanatory Notes for details.

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 Underwater Primer 26030	Min Max	20 h 30 h	8 h 12 h
Hempel's High Protect II	Min Max	20 h 12 d	8 h 5 d
Hempel's Light Primer 45550	Min Max	20 h 12 d	8 h 5 d
Hempel's Light Primer 45551	Min Max	20 h 12 d	8 h 5 d

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.
- The surface must be clean before overcoating.

Other remarks

- The surface must be clean before overcoating.

Hempel's High Protect II

Storage

Shelf life

Ambient temperature	25°C [77°F]
Base	36 months
Curing Agent	24 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.
- 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)	6.2 g CO_2e/m²	0.032 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.

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.
- Further information: Hempel Yacht Paint Manual and hempelyacht.com

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.