Hempathane HS 55810

Product characteristics

Description
Hempathane HS 55810 is a two-component polyurethane topcoat, cured with aliphatic isocyanate, with very good gloss and colour retention.

Recommended use
As a low VOC finishing coat for protection of structural steel in severely corrosive atmospheric environment.

Service temperature:
- Maximum, dry exposure only: 120°C [248°F].

Certificates / Approvals
- Complies with the European Fire Standard EN 13501-1, reaction to fire classification, when used as part of a predefined paint system. B-s2, d0.

Product safety

Flash point 34°C [93°F]

VOC content mixed product

Legislation	Value
EU	366 g/L [3.05 lb/US gal]
US (coatings)	366 g/L [3.05 lb/US gal]
US (regulatory)	366 g/L [3.05 lb/US gal]
China	366 g/L [3.05 lb/US gal]

According to specific legislation, see details in the Explanatory Notes available at Hempel website, hempel.com or at your local Hempel website. 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
55810

Product components
Base 55819
Curing Agent 95373

Standard shade* / code
White 10000 **

Gloss
High-gloss

Volume solids
64 ± 2%

Specific gravity
1.4 kg/L [12 lb/US gal]

Reference dry film thickness
40 micron [1.6 mils]

Surface preparation

Cleanliness
- Remove oil, grease and other contaminants by suitable detergent cleaning.
- Remove salts, detergents and other contaminants by high pressure fresh water cleaning.

New build:
- According to Hempel's Specification.

Maintenance and Repair
- According to Hempel's Specification.

Consult Hempel's separate Surface Preparation Guidelines for more details.

* Other shades are available, please contact your local Hempel representative.
** High temperature may cause yellowing/discolouration.

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Application

Mixing ratio
Base 55819 : Curing Agent 95373
(4 : 1 by volume)

Stir well before use.

Thinner
Hempel's Thinner 08080

Cleaner
Hempel's Thinner 08880

Pot life

Product temperature	20°C [68°F]
Pot life	4 hours

Application method

Tool	Thinning max vol.	Application parameters
Airless spray	5%	Nozzle pressure: 150 bar [2200 psi] Nozzle orifice: 0.017-0.021"
Brush	5%	Not Applicable.

If brush or roller application is used, more coats will be necessary to achieve the specified dry film thickness. Spray data are indicative and subject to adjustment. Pressure is for a material temperature of 20°C [68°F].

Film thickness

Specification range	Low	High	Recommended
Dry film thickness	40 micron [1.6 mils]	50 micron [2.0 mils]	40 micron [1.6 mils]
Wet film thickness	60 micron [2.5 mils]	80 micron [3 mils]	60 micron [2.5 mils]
Theoretical spreading rate	16 m²/L [650 sq ft/US gal]	13 m²/L [530 sq ft/US gal]	16 m²/L [650 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. For best performance, avoid excessive film thickness.

Application conditions
- To avoid condensation, apply on a clean and dry surface with a temperature that is at least 3°C [5°F] above the dew point.
- Surface temperature must be above -10°C [14°F] during application and curing.
- Beware of ice on the surface at low temperatures.
- The film formation may be adversely affected by light rain, high humidity and/or condensation during application and the following interval after application: “24 hours, 20°C/68°F”.

Relative Humidity:
- Relative humidity must be below 85% during curing.
- Relative humidity must be below 90% during application.

Application remarks
- Two coats of the topcoat may be necessary to obtain full hiding power.

Drying and overcoating

Product compatibility
- Previous coat: According to Hempel’s Specification. Recommended products are: Hempadur Fast Dry 17410, Hempadur Mastic 45880/1, Hempaprime Multi 500 45950/3
- Subsequent coat: None.

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Drying time

Surface temperature		20°C [68°F]
Touch dry	min	90
Hard dry	hours	5

Determined for dry film thickness 40 micron [1.6 mils] at standard conditions, see Hempel's Explanatory Notes for details.

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

- The surface must be dry and clean prior to application.

Other remarks

- Hempel's Specification supersedes any recommendations given in the Product Data Sheets.

Storage

Shelf life

Ambient temperature	25°C [77°F]
Base	36 months
Curing Agent	12 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. 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.
- Product must be stored according to local legislation, at maximum 40°C [104°F], without direct sunlight and protected from rain and snow.

Carbon Footprint

Dry film thickness	1 µm	1 mil
GWP (Global Warming Potential)	8.8 g CO_2e/m^2	0.046 lb CO_2e/ft^2

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 Hempel website
https://www.hempel.com/service-and-support/technical-guidelines
or at your local Hempel website:

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