

Hempadur 85531

Product characteristics

Description

Hempadur 85531 is an amine-adduct, cured epoxy coating. It is a hard, impact and abrasion resistant coating eg for exterior pipelines. The material has excellent properties in respect of temperature resistance, mechanical and chemical resistance and cathodic disbondment resistance.

Recommended use

For new constructions as well as field-applied renovation and repair coating. As a self-primed, high build coating primarily for protection of interior of steel pipes and of exterior of steel pipes in severely corrosive environment, including permanent immersion.

Hempadur 85531 is an excellent material for repair and can be applied to lines while in service temperature up to 90°C/194°F.

Service temperature:

- Maximum, dry exposure only: 120°C [248°F].
- Maximum, in water (no temperature gradient): 90°C [194°F].

Product safety

Flash point 14°C [57°F]

VOC content mixed product

Legislation	Value
EU	167 g/L [1.39 lb/US gal]
US (coatings)	167 g/L [1.39 lb/US gal]
US (regulatory)	167 g/L [1.39 lb/US gal]
China	167 g/L [1.39 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

85531

Product components

Base 85539
Curing Agent 97531

Standard shade / code

Brownish red 50890 *

Gloss

Glossy

Volume solids

84 ± 2%

Specific gravity

1.7 kg/L [14 lb/US gal]

Reference dry film thickness

350 micron [14 mils]

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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:

- Abrasive blasting to min. Sa 2½ (ISO 8501-1) / SP 10 (SSPC).
- Remove dust, blast media and loose materials.

Maintenance and Repair

- Spot abrasive blasting to min. PSa 2½ (ISO 8501-2) / SP 10 (SSPC).
- Remove dust, blast media and loose materials.

Roughness

- Surface profile Medium (G) (ISO 8503-2).

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

Application

Mixing ratio

Base 85539 : Curing Agent 97531
(4 : 1 by volume)

Stir well before use.

Thinner

Hempel's Thinner 08450

Cleaner

Hempel's Tool Cleaner 99610

Pot life

Product temperature	20°C [68°F]
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Pot life	60 min
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Application method

Tool	Thinning max vol.	Application parameters
Airless spray	5%	Nozzle pressure: 250 bar [3600 psi] Nozzle orifice: 0.021-0.023"

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	350 micron [14 mils]	500 micron [20 mils]	350 micron [14 mils]
Wet film thickness	417 micron [17 mils]	596 micron [24 mils]	417 micron [17 mils]
Theoretical spreading rate	2.4 m ² /L [98 sq ft/US gal]	1.7 m ² /L [69 sq ft/US gal]	2.4 m ² /L [98 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 5°C [41°F] during application and curing.
- Temperature of product must be above 15°C [59°F] during application.
- Optimal paint temperature for proper mixing, pumping and spraying is: 20-30°C [68-86°F].

Drying and overcoating

Product compatibility

- Previous coat: None.
- Subsequent coat: None or according to Hempel's specification.

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Drying time

Surface temperature		20°C [68°F]
Touch dry	min	120
Hard dry	hours	6

Determined for dry film thickness 350 micron [14 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]	30°C [86°F]
Atmospheric severe				
Hempadur 85531	Min	36 h	16 h	11 h
	Max	11 d	5 d	3½ d
Immersion				
Hempadur 85531	Min	36 h	16 h	11 h
	Max	11 d	5 d	3½ d

Overcoating times are indicative for products of the same generic chemistry. Consult Hempel's specification for more information.

Drying conditions

- To obtain the drying time stated, it is important to maintain sufficient ventilation during application, drying and curing.

Overcoating details

- If the maximum overcoating interval is exceeded, roughening of the surface is necessary to ensure intercoat adhesion.
- The surface must be dry and clean prior to application.

Other remarks

- Epoxy coats have an inherent tendency of chalking in outdoor exposure. This does not affect the performance of the coating.
- Hempel's Specification supersedes any recommendations given in the Product Data Sheets.

Storage

Shelf life

Ambient temperature	25°C [77°F]
Base	12 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. For advice, please consult Hempel.

Storage conditions

- 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)	6.1 g CO ₂ e/m ²	0.032 lb CO ₂ e/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

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.