Hempadur 15400

Product characteristics

Description
Hempadur 15400 is a two-component, amine adduct cured epoxy paint, which cures to a coating with excellent resistance to a wide range of chemicals as tabulated in separate CARGO PROTECTION GUIDE.

Recommended use
As a tank lining. Hempadur 15400 is suitable for application down to minimum 10°C/50°F. For colder application temperatures down to minimum 5°C/41°F use Hempadur 15402.

Service temperature:
- Maximum, dry exposure only: 140°C [284°F].
- Maximum, in water (no temperature gradient): 50°C [122°F].
- Other liquids: Please contact Hempel.
- Minimum, recommended by Hempel for dry exposure: -50°C [-58°F].

Certificates / Approvals
- Complies with US FDA and EU food regulations for contact with dry foodstuff. Consult Hempel for details.

Product safety

Flash point 26°C [79°F]

VOC content mixed product

Legislation	Value
EU	463 g/L [3.86 lb/US gal]
US (coatings)	463 g/L [3.86 lb/US gal]
US (regulatory)	463 g/L [3.86 lb/US gal]
China	463 g/L [3.86 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: 15400

Product components: Base 15409 | Curing Agent 95100

Standard shade / code: White 10000

Gloss: Semi-flat

Volume solids: 48 ± 2%

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

Reference dry film thickness: 80 micron [3.2 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:
- Abrasive blasting to min. Sa 2½ (ISO 8501-1) / SP 10 (SSPC) / NACE No.2.
- Remove dust, blast media and loose materials.

Maintenance and Repair
- Abrasive blasting to min. Sa 2½ (ISO 8501-1) / SP 10 (SSPC) / NACE No. 2.
- 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.

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Application

Mixing ratio
Base 15409 : Curing Agent 95100
(4 : 1 by volume)

Stir well before use. It is recommended to use fixed volumes/can size for multi-component products.

Thinner
Hempel's Thinner 08450

Cleaner
Hempel's Tool Cleaner 99610

Pot life

Product temperature	20°C [68°F]	15°C [59°F]	30°C [86°F]
Induction time	15 min	25 min	5 min
Pot life	2 hours	3 hours	1 hour
Pot life (spray)	2 hours	3 hours	1 hour
Pot life (brush)	4 hours	5 hours	2 hours

Application method

Tool	Thinning max vol.	Application parameters
Airless spray	5%	Nozzle pressure: 200 bar [2900 psi] Nozzle orifice: 0.018-0.021"
Brush	5%	-

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	80 micron [3.2 mils]	125 micron [5.0 mils]	80 micron [3.2 mils]
Wet film thickness	166 micron [6.7 mils]	260 micron [10 mils]	166 micron [6.7 mils]
Theoretical spreading rate	6 m²/L [244 sq ft/US gal]	3.8 m²/L [155 sq ft/US gal]	6 m²/L [244 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 [50°F] during application and curing.
- Optimal paint temperature for proper mixing, pumping and spraying is: 15-25°C [59-77°F].
- Temperature of product must be above 10°C [50°F] during application.
- Provide adequate ventilation during application and drying.

Relative Humidity:
- Relative humidity must be below 80% during curing.
- Relative humidity must be below 80% during application.

Drying and overcoating

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

Drying time

Surface temperature		20°C [68°F]
Touch dry	hours	1½
Hard dry	hours	4½

Determined for dry film thickness 80 micron [3.2 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]
		Immersion		
Hempadur 15400	Min	30 h	10 h	5 h
	Max	28 d	21 d	14 d

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

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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	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 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)	11.2 g CO_2e/m^2	0.059 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.

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.
- 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.