

Hempadur Multi-Strength 45753

Product characteristics

Description

Hempadur Multi-Strength 45753 is a self-priming, high-build, pure epoxy coating which cures to an abrasion and corrosion resistant coating. Applicable by standard heavy-duty airless spray equipment. Complies with EU Directive 2004/42/EC, The Paints Directive on the limitation of volatile organic compounds: subcategory j.

Recommended use

Hempadur Multi-Strength 45753 is recommended as a heavy duty coating for areas exposed to abrasion and aggressive corrosive climate such as ramps, ship hulls and holds of bulk carriers. The product is also suitable for ballast tank coatings for special purposes such as chemical carriers carrying hot cargoes and other purposes where a pure epoxy coating is requested. Is applicable as a finishing coat where a cosmetic appearance is of less importance. Hempadur Multi-Strength 45753 is intended for use in cold climates.

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.

Certificates / Approvals

- Recognized Abrasion Resistant Ice Coating. Consult Hempel for specific Type Approval Certificates.
- Meets requirements for internal use in pipelines for power generation when tested according to NS 5417 (Norwegian standard).

Features

- High mechanical resistance.
- High surface tolerance.

Product safety

Flash point 27°C [81°F]

VOC content mixed product

Legislation	Value	5% thinning, by volume	Limit value, phase II (2010) ^a
EU	234 g/L [1.95 lb/US gal]	265 g/L [2.21 lb/US gal]	500 g/L [4.17 lb/US gal]
US (coatings)	235 g/L [1.96 lb/US gal]	-	-
US (regulatory)	234 g/L [1.95 lb/US gal]		
China	234 g/L [1.95 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. ^aEU Directive 2004/42/CE. 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

45753

Product components

Base 45755
Curing agent 98750

Standard shade* / code

Grey 12340 **

Gloss

Semi-gloss

Volume solids

79 ± 2%

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

** Slight discolouration may occur. This does not affect the performance of the coating.

Hempadur Multi-Strength 45753

Specific gravity

1.6 kg/L [13 lb/US gal]

Reference dry film thickness

200 micron [7.9 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).
- Concrete: According to Hempel's Specification.

Maintenance and Repair

- Spot abrasive blasting to min. PSa 2 (ISO 8501-2) / SP 6 (SSPC).
- Minor areas may be hand or power tool cleaned instead of abrasive blasting.
- Water jetting to Wa 2½ (ISO 8501-4).
- Flash rust degree of maximum FR M (ISO 8501-4).
- 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 45755 : Curing agent 98750
(3 : 1 by volume)

Stir well before use.

Thinner

Hempel's Thinner 08450

Cleaner

Hempel's Tool Cleaner 99610

Pot life

Product temperature	15°C [59°F]	20°C [68°F]	25°C [77°F]
Pot life	2 hours	1 hour	½ hours

Application method

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

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	125 micron [4.9 mils]	300 micron [12 mils]	200 micron [7.9 mils]
Wet film thickness	150 micron [6 mils]	370 micron [15 mils]	250 micron [10 mils]
Theoretical spreading rate	6.3 m ² /L [260 sq ft/US gal]	2.6 m ² /L [110 sq ft/US gal]	3.9 m ² /L [160 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

- Temperature of product must be above 15°C [59°F] during application.
- 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.

Relative Humidity:

- Relative humidity must be below 85% during curing.

Hempadur Multi-Strength 45753

Application remarks

- Product requires heavy duty spray equipment; spray hoses shall be as short as possible.

Drying and overcoating

Product compatibility

- Previous coat: None or according to Hempel's specification.
- Subsequent coat: None or according to Hempel's specification.
Recommended products are: Hempadur, Hemptthane

Drying time

Surface temperature		-10°C [14°F]	0°C [32°F]	20°C [68°F]	30°C [86°F]
Touch dry	hours	14	8	2½	1½
Hard dry	hours	45	23	4	2½
Fully cured	days	63	32	7	3½

Determined for dry film thickness 200 micron [7.9 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 [14°F]	0°C [32°F]	20°C [68°F]	30°C [86°F]
Atmospheric severe					
Hempadur Multi-Strength 45753	Min	45 h	23 h	5 h	4 h
	Max	90 d	90 d	30 d	22 d
Hemptthane HS 55610	Min	54 h	27 h	6 h	4½ h
	Max	27 d	13 d	72 h	54 h
Immersion					
Hempadur Multi-Strength 45753	Min	54 h	27 h	6 h	4½ h
	Max	90 d	90 d	30 d	22 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]	35°C [95°F]
Base	36 months	24 months
Curing agent	36 months	24 months

Shelf life from date of production, when stored in original, unopened containers. Thereafter, the product quality must be re-inspected. Always check the best before date or expiry date on the label.

Storage conditions

- Product must be stored according to local legislation, at maximum 40°C [104°F], without direct sunlight and protected from rain and snow.

Hempadur Multi-Strength 45753

Additional documents

Additional information is available at the Hempel website hempel.com or at your local Hempel website:

- Explanatory Notes explaining the fields in this Product Data Sheet.
- Surface Preparation Guidelines.
- Application Guidelines for different 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.