

# Hempadur 45143

## Product characteristics

### Description

Hempadur 45143 is a two-component, polyamide adduct cured epoxy paint with good wetting properties and low water permeability. It is selfpriming and forms a hard and tough coating which has good resistance against abrasion and impact as well as to seawater, mineral oils, aliphatic hydrocarbons and splashes from petrol and related products. Harmless to grain cargoes.

Complies with EU Directive 2004/42/EC, The Paints Directive on the limitation of volatile organic compounds: subcategory j.

### Recommended use

1. As a high build primer, intermediate and/or finishing coat in (heavy duty) paint systems according to specification. (As a finishing coat where a cosmetic appearance is of less importance).
2. For repair and maintenance work at application temperatures above -10°C/15°F on hatch covers, decks, in cargo holds and ballast tanks etc.

Hempadur 45143 is intended for use in cold/temperate climates, Hempadur 45141 for warmer climates - see APPLICATION CONDITIONS overleaf.

### Service temperature:

- Maximum, dry exposure only: 150°C [302°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	5% thinning, by volume	Limit value, phase II (2010) <sup>a</sup>
EU	368 g/L [3.07 lb/US gal]	393 g/L [3.28 lb/US gal]	500 g/L [4.17 lb/US gal]
US (coatings)	368 g/L [3.07 lb/US gal]	-	-
US (regulatory)	369 g/L [3.08 lb/US gal]	-	-
China	368 g/L [3.07 lb/US gal]	-	-

According to specific legislation, see details in the Explanatory Notes available at Hempel website, [hempel.com](http://hempel.com) or at your local Hempel website. VOC values may vary with shade, please consult the Safety Data Sheet, section 9. <sup>a</sup>EU Directive 2004/42/CE.

### 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

45143

### Product components

Base 45148  
Curing Agent 97430

### Standard shade\* / code

Brownish red 50630

### Gloss

Semi-gloss

### Volume solids

60 ± 2%

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**Specific gravity**

1.3 kg/L [11 lb/US gal]

**Reference dry film thickness**

150 micron [5.9 mils]

**Aluminium shade / code**

Aluminium grey 19000

**Gloss**

Please consult Hempel's Guideline on aluminium pigmented coatings.

**Volume solids**

58 ± 2%

**Specific gravity**

1.2 kg/L [10 lb/US gal]

**Reference dry film thickness**

150 micron [5.9 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:**

- Remove damaged shopprimer and any contamination prior to painting.
- Abrasive blasting to min. Sa 2½ (ISO 8501-1) / SP 10 (SSPC).
- Remove dust, blast media and loose materials.
- Concrete: According to Hempel's Specification.

**Maintenance and Repair**

- Spot abrasive blasting to min. PSa 2 (ISO 8501-2) / SP 6 (SSPC).
- Minor areas can be cleaned by power tool to St 3 provided the surface is roughened and not polished.
- Water jetting to min. Wa 2 (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 45148 : Curing Agent 97430  
(3 : 1 by volume)

Stir well before use.

**Thinner**

Hempel's Thinner 08450

**Cleaner**
Hempel's Tool Cleaner 99610  
Hempel's Thinner 08450
**Pot life**

Product temperature	20°C [68°F]
Pot life	2 hours
Pot life (spray)	2 hours
Pot life (brush)	4 hours

**Application method**

Tool	Thinning max vol.	Application parameters
Airless spray	5%	Nozzle pressure: 250 bar [3600 psi] Nozzle orifice: 0.019-0.023"
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].

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## Film thickness

Specification range	Low	High	Recommended
Dry film thickness	80 micron [3.1 mils]	175 micron [6.9 mils]	150 micron [5.9 mils]
Wet film thickness	130 micron [5 mils]	290 micron [12 mils]	250 micron [10 mils]
Theoretical spreading rate	7.5 m <sup>2</sup> /L [310 sq ft/US gal]	3.4 m <sup>2</sup> /L [140 sq ft/US gal]	4 m <sup>2</sup> /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

- Surface temperature must be above -10°C [14°F] during application and curing.
- To facilitate proper application properties at low temperatures it is recommended to allow the thoroughly mixed Base and Curing Agent to prereact before 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	2
Hard dry	hours	4
Fully cured	days	7

Determined for dry film thickness 150 micron [5.9 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]
Atmospheric medium				
Hempadur 45143	Min	36 h	18 h	4 h
	Max	Ext*	Ext	Ext
Hempathane HS 55610	Min	36 h	18 h	4 h
	Max	90 d	45 d	10 d
Immersion				
Hempadur 45143	Min	54 h	27 h	6 h
	Max	90 d	90 d	30 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 clean before overcoating.

## 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.

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## Additional documents

Additional information is available at the Hempel website [hempel.com](http://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](http://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 <a href="http://www.hempel.com">www.hempel.com</a> and contain relevant information about the Product testing parameters
5.	Application Instruction	Where available, at <a href="http://www.hempel.com">www.hempel.com</a>
6.	Generic technical guidelines (e.g. on application and surface preparation)	Where available, at <a href="http://www.hempel.com">www.hempel.com</a>

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](http://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.