

# Hempadur Mastic 45881

## Product characteristics

### Description

Hempadur Mastic 45881 is a polyamide curing, high solids epoxy paint. It forms a hard and tough coating, and has good wetting properties.

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

### Recommended use

Hempadur Mastic 45881 is recommended as a self-primed, surface tolerant paint system, or as an intermediate or a topcoat in heavy duty paint systems where low VOC and high film build are required. The product can be used where extended recoating properties for polyurethane topcoats are requested. It may also be used directly on zinc silicate or spray metallized surfaces. The product can be used for minor repairs in immersed areas.

### Service temperature:

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

### Certificates / Approvals

- EC-type examined as a low flame spread material when used as part of a predefined paint system. Please refer to "Declaration of Conformity" on [hempel.com](http://hempel.com) for further details.
- Complies with US FDA and EU food regulations for contact with dry foodstuff. Consult Hempel for details.

### Features

- Versatile.
- High surface tolerance.

## Product safety

**Flash point** 39°C [102°F]

### VOC content mixed product

Legislation	Value	5% thinning, by volume	Limit value, phase II (2010) <sup>a</sup>
EU	218 g/L [1.82 lb/US gal]	250 g/L [2.09 lb/US gal]	500 g/L [4.17 lb/US gal]
US (coatings)	218 g/L [1.82 lb/US gal]	-	-
US (regulatory)	218 g/L [1.82 lb/US gal]	-	-
China	218 g/L [1.82 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

45881

### Product components

Base 45889  
Curing Agent 95881

### Standard shade\* / code

Light grey 12170 \*\*

### Gloss

Semi-gloss

\* Other shades are available, including shades containing MIO. Please contact your local Hempel representative.

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

# Hempadur Mastic 45881

**Volume solids**

80 ± 2%

**Specific gravity**

1.5 kg/L [12 lb/US gal]

**Reference dry film thickness**

125 micron [4.9 mils]

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**Aluminium shade / code**

Aluminium grey 19002 \*

**Gloss**

Please consult Hempel's Guideline on aluminium pigmented coatings.

**Volume solids**

72 ± 2%

**Specific gravity**

1.3 kg/L [11 lb/US gal]

**Reference dry film thickness**

125 micron [4.9 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.
- Remove dust, blast media and loose materials.

**Maintenance and Repair**

- Spot abrasive blasting to min. P Sa 2 (ISO 8501-2) / SP 6 (SSPC).
- Minor areas may be hand or power tool cleaned instead of abrasive blasting.
- 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 45889 : Curing Agent 95881  
(3 : 1 by volume)

Stir well before use.

**Thinner**

Hempel's Thinner 08450

**Cleaner**

Hempel's Tool Cleaner 99610

# Hempadur Mastic 45881

## Pot life

Product temperature	20°C [68°F]	30°C [86°F]
Pot life	2 hours	1½ hours

## Application method

Tool	Application parameters
Airless spray	Nozzle pressure: 250 bar [3600 psi] Nozzle orifice: 0.017-0.023"
Brush	Not Applicable.
Roller	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	100 micron [3.9 mils]	200 micron [7.9 mils]	125 micron [4.9 mils]
Wet film thickness	125 micron [5 mils]	250 micron [10 mils]	150 micron [6 mils]
Theoretical spreading rate	8 m <sup>2</sup> /L [330 sq ft/US gal]	4 m <sup>2</sup> /L [160 sq ft/US gal]	6.4 m <sup>2</sup> /L [260 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.
- Surface temperature must be above 15°C [59°F] during application and curing.
- 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.

## Relative Humidity:

- Relative humidity must be below 85% during drying and curing.

## 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]
Hard dry	hours	4
Fully cured	days	7

Determined for dry film thickness 125 micron [4.9 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		20°C [68°F]	30°C [86°F]	40°C [104°F]
Atmospheric medium				
Hempadur Mastic 45881	Min	7 h	5½ h	3½ h
	Max	Ext*	Ext	Ext
Hempathane HS 55610	Min	6 h	5 h	3 h
	Max	Ext*	Ext	Ext
Atmospheric severe				
Hempadur Mastic 45881	Min	10 h	8 h	5 h
	Max	Ext*	Ext	Ext
Hempathane HS 55610	Min	10 h	8 h	5 h
	Max	72 h	54 h	36 h

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.

# Hempadur Mastic 45881

## 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. For advice, please consult Hempel.

### Storage conditions

- Product must be stored according to local legislation, at 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)	6.2 g CO <sub>2</sub> e/m <sup>2</sup>	0.032 lb CO <sub>2</sub> e/ft <sup>2</sup>

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 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](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.