Hempadur Mastic 4588W

Product characteristics

Description
Hempadur Mastic 4588W is a two-component high solids, high build epoxy paint. It forms a hard and tough coating, has good wetting properties and low temperature curing.

Recommended use
As a selfprimed paint system or as an intermediate coat in heavy duty paint systems for atmospheric exposure, where low VOC and high film build are required.
Especially suited for application at low temperatures (down to -10°C/15°F) and where relatively short recoating interval is required (one day, one coat).

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 for further details.

Product safety

Flash point 37°C [99°F]

VOC content mixed product

Legislation	Value
EU	200 g/L [1.67 lb/US gal]
US (coatings)	200 g/L [1.67 lb/US gal]
US (regulatory)	200 g/L [1.67 lb/US gal]
China	200 g/L [1.67 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
4588W

Product components
Base 45889
Curing Agent 9588W

Standard shade* / code
Stone Grey 12170 **
Light grey 12170

Gloss
Semi-gloss

Volume solids
80 ± 2%

Specific gravity
1.5 kg/L [12 lb/US gal]

Reference dry film thickness
200 micron [8.0 mils]

* Other shades are available, please contact your local Hempel representative.
** Slight discolouration may occur. This does not affect the performance of the coating.

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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).
- Concrete: According to Hempel's Specification.
- Remove dust, blast media and loose materials.

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 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 9588W
(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	60 min
Pot life (spray)	60 min
Pot life (brush)	2 hours

Application method

Tool	Thinning max vol.	Application parameters
Airless spray	5%	Nozzle pressure: 250 bar [3600 psi] Nozzle orifice: 0.017-0.023"
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].

Film thickness

Specification range	Low	High	Recommended
Dry film thickness	100 micron [4.0 mils]	200 micron [8.0 mils]	200 micron [8.0 mils]
Wet film thickness	126 micron [5.0 mils]	251 micron [10 mils]	251 micron [10 mils]
Theoretical spreading rate	8 m²/L [326 sq ft/US gal]	4 m²/L [163 sq ft/US gal]	4 m²/L [163 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 -10°C [14°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.

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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]
Touch dry	hours	2½
Hard dry	hours	3½
Fully cured	days	7

Determined for dry film thickness 200 micron [8.0 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 Mastic 4588W	Min	63 h	28 h	7 h
	Max	63 d	28 d	7 d
Hempathane HS 55610	Min	63 h	28 h	7 h
	Max	63 d	28 d	7 d
Atmospheric severe				
Hempadur Mastic 4588W	Min	4 d	40 h	10 h
	Max	63 d	28 d	7 d
Hempathane HS 55610	Min	4 d	40 h	10 h
	Max	27 d	12 d	72 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.

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	12 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.

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Carbon Footprint

Dry film thickness	1 µm	1 mil
GWP (Global Warming Potential)	6.4 g CO_2e/m^2	0.033 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 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.