Hempadur Tiecoat 49183

Product characteristics

Description
Hempadur Tiecoat 49183 is an anticorrosive two-component epoxy.

Recommended use
For atmospheric and immersion service used as a "tiecoat" between epoxy and physically drying coatings. For immersion service it can also replace a second anti-corrosive primer coat for the underwater coating system and at the same time act as "tiecoat" for antifouling.

Service temperature:
- Maximum, dry exposure only: 80°C [176°F].
- Maximum, in sea water: 40°C [104°F].

Features
- Good anticorrosive properties.
- Acts as "tiecoat" between primer and physically drying coats.

Product safety

Flash point 31°C [88°F]

VOC content mixed product

Legislation	Value
EU	397 g/L [3.31 lb/US gal]
US (coatings)	397 g/L [3.31 lb/US gal]
US (regulatory)	397 g/L [3.31 lb/US gal]
China	397 g/L [3.31 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.

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
49183

Product components
Base 49187
Curing Agent 98191

Standard shade* / code
Black 19990

Gloss
Semi-flat

Volume solids
57 ± 2%

Specific gravity
1.3 kg/L [11 lb/US gal]

Reference dry film thickness
100 micron [4.0 mils]

Surface preparation

Cleanliness
- According to Hempel's Specification.

New build:
- According to Hempel's Specification.

Maintenance and Repair
- According to Hempel's Specification.

Consult Hempel's separate Surface Preparation Guidelines for more details.

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

Hempadur Tiecoat 49183

Application

Mixing ratio
Base 49187 : Curing Agent 98191
(7 : 1 by volume)

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

Thinner
Hempel's Thinner 08450

Cleaner
Hempel's Tool Cleaner 99610

Pot life

Product temperature	20°C [68°F]
Pot life	2½ hours

Application method

Tool	Thinning max vol.	Application parameters
Airless spray	5%	Nozzle pressure: 230 bar [3300 psi] Nozzle orifice: 0.023-0.023"
Brush	5%	Not Applicable.

Lower paint temperatures may require extra thinning, which will result in lower film build and slower drying. 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	50 micron [2.0 mils]	125 micron [5.0 mils]	100 micron [4.0 mils]
Wet film thickness	87 micron [3.5 mils]	218 micron [8.7 mils]	174 micron [7.0 mils]
Theoretical spreading rate	11 m²/L [448 sq ft/US gal]	4.6 m²/L [187 sq ft/US gal]	5.7 m²/L [232 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
- Optimal paint temperature for proper mixing, pumping and spraying is: 20-25°C [68-77°F].
- 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.

Application remarks
- If used as a sealer on old antifouling, any possible leached layer, patina or old layers with weak intercoat adhesion must be removed prior to application.

Drying and overcoating

Product compatibility
- Previous coat: According to Hempel's Specification. Recommended product is: Hempadur.
- Subsequent coat: According to Hempel's Specification.

Hempadur Tiecoat 49183

Drying time

Surface temperature		20°C [68°F]
Surface dry	min	30
Through dry	hours	5

Determined for dry film thickness 100 micron [4.0 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		0°C [32°F]	10°C [50°F]	20°C [68°F]
Immersion				
Hempel's AntiFouling Globic 9000 78900	Min	23 h	10 h	5 h
	Max	22 d	10 d	5 d
Atmospheric medium				
Hempatex Enamel 56360	Min	23 h	10 h	5 h
	Max	27 d	12 d	6 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]
Base	36 months
Curing Agent	24 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.

Carbon Footprint

Dry film thickness	1 µm	1 mil
GWP (Global Warming Potential)	8.1 g CO_2e/m^2	0.042 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.

Hempadur Tiecoat 49183

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.