Hempaspeed TF

Product characteristics

Description
Hempaspeed TF is a hard biocide-free, thin-film coating. Forms an ultra-smooth surface that minimizes growth and reduces drag.

Recommended use
Hempaspeed TF is for use as an antifouling for boats of glass fibre, steel and aluminium. Suitable for pleasure boats and racing / regatta boats. Ideal for both fresh and salt water use. Cleaning maybe necessary in areas of high fouling during the season.

Service temperature:
- Minimum, recommended by Hempel for dry exposure: -50°C [-58°F].

Features
- Easy to clean.
- No run-off contamination.

Product safety

Flash point 35°C [96°F]

VOC content

Legislation	Value
EU	506 g/L [4.22 lb/US gal]

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.

Product data

Product code: 77222

Standard shade / code: White / Off white 10101

Gloss: Glossy

Volume solids: 43 ± 2%

Specific gravity: 1.2 kg/L [10 lb/US gal]

Reference dry film thickness: 40 micron [1.6 mils]

Surface preparation

Cleanliness
- Remove salts, detergents, contaminants and marine growth by high pressure fresh water cleaning.
- Clean with Hempel's Pre-Clean.

New build:
- Uncoated surface: Prepare bare substrates according to Hempel's primer instruction.

Maintenance and Repair
- Existing old self-polishing or traditional antifouling: Remove loose matter and contaminants by high pressure fresh water cleaning.
- Existing old hard matrix antifouling or an unknown antifouling: High pressure fresh water clean, wet abrade, remove dust.
- If previous antifouling is in general bad condition, it is recommended to remove previous coats and prime before applying antifouling.
- Clean and dry the surface.
- Only apply Hempaspeed TF over Hempel's Conversion Primer.
- Important: Overcoating aged Hempaspeed TF: Sand entire underwater area. If existing Conversion Primer is exposed, apply a fresh layer of Conversion Primer onto a slightly larger area than the exposed primer. Apply 2 coats of Hempaspeed TF.

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Application

Thinner
Hempel's Thinner 808 08081
Hempel's Thinner 08080

Cleaner
Hempel's Thinner 808 08081
Hempel's Tool Cleaner 99610

Application method

Tool	Thinning max vol.	Application parameters
Brush/Roller	5%	-
Airless spray	5%	Nozzle pressure: 170 bar [2500 psi] Nozzle orifice: 0.015"

Keep thinning at an absolute minimum. Spray data are indicative and subject to adjustment. Pressure is for a material temperature of 20°C [68°F].

Film thickness

	Recommended
Dry film thickness	40 micron [1.6 mils]
Wet film thickness	93 micron [3.7 mils]
Theoretical spreading rate	11 m²/L [448 sq ft/US gal]

Application conditions
- 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 application.

Application remarks
- Stir well before use.
- Follow stated overcoating intervals between the primer and product to ensure intercoat adhesion.
- Apply a minimum of 2 coats of the product. For best performance apply 3 coats of the product.
- Airless spray is for professional use only.
- Ensure all surfaces and equipment are thoroughly cleaned between applications.
- Solvents such as Hempel Tool Cleaner 99610 are recommended for cleaning.
- As best practice it is recommended to tent around application area and mask other areas as thoroughly as possible to contain overspray.

Drying and overcoating

Product compatibility
- Previous coat: Recommended product is: Hempel's Conversion Primer 45441
- Subsequent coat: None.

Drying time

Surface temperature		5°C [41°F]	10°C [50°F]	20°C [68°F]	30°C [86°F]
Touch dry	min	45	30	15	9
Surface dry	hours	12	8	4	3

Determined for dry film thickness 40 micron [1.6 mils] at standard conditions, see Hempel's Explanatory Notes for details. Time to immersion: Minimum: 24 Hours 20°C ; Maximum 3 months

Overcoating

Hempel's specification supersedes any guidelines indicated in the overcoating table

Quality name		10°C [50°F]	20°C [68°F]	30°C [86°F]
		Immersion		
Hempaspeed TF	Min	8 h	4 h	3 h
	Max	48 h	48 h	48 h

Drying conditions
- To obtain the drying time stated, it is important to maintain sufficient ventilation during application, drying and curing.
- Condensation on the freshly applied coating should be avoided.

Overcoating details
- * No maximum overcoating interval but surfaces could take on a greasy appearance after application of the product. To remove grease, detergent cleaning and light abrading is required before overcoating.

Other remarks
- The surface must be clean before overcoating.

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Storage

Shelf life

Ambient temperature	25°C [77°F]
Product	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. The shelf life printed on product labels is based on regional climate conditions. For advice, please consult Hempel.

Storage conditions

- Temperature must not go below 5°C [41°F] during transport and storage.
- 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.

Carbon Footprint

Dry film thickness	1 µm	1 mil
GWP (Global Warming Potential)	11.6 g CO_2e/m²	0.06 lb CO_2e/ft²

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 Knowledge Center: https://www.hempel.com/knowledge-center . The documents below can be found in the Technical Guidelines section: https://www.hempel.com/knowledge-center/technical-guidelines or at the Hempel website.

- Explanatory Notes for Product Data Sheet.
- Application methods.

Additional Certifications and Standards

Hempaspeed TF is a biocide-free coating that complies with the requirements to antifouling systems as stated in the IMO Convention on the Control of Harmful Antifouling Systems on Ships (AFS/CONF/26), adopted 5 October 2001 in London

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.