

Hempadur Avantguard 750

Product characteristics

Description

Hempadur Avantguard 750 is an activated, zinc-rich epoxy primer in compliance with the requirements of Level 2, type II in SSPC Paint-20, 2019 and ISO 12944 Part 5, 2018. The product is in full compliance with ASTM D520 type II and EU Directive 2004/42/EC, the Paints Directive on the limitation of volatile organic compounds: subcategory j.

Recommended use

Hempadur Avantguard 750 is recommended as a versatile primer for long-term protection of steel in severely corrosive environments including offshore.

Service temperature

- Maximum, dry exposure only: 160°C [320°F].

Certificates / Approvals

- Complies with the European Fire Standard EN 13501-1, fire reaction class: B-s1, d0.
- Meets requirements to NORSOK M-501 when used as part of a predefined paint system. Edition 6, system no. 1.

Features

- Reduces the effect of corrosion and provides excellent galvanic protection.
- Fast drying primer with short minimum overcoating intervals.
- Excellent mechanical strength, also in cyclic temperatures, with improved tolerance to high film thicknesses through high flexibility and self-healing effect.
- Superior tolerance to high relative humidity during application.
- Cures down to -10°C [14°F].

Product safety

Flash point 25°C [77°F]

VOC content mixed product

Legislation	Value	15% thinning, by volume	Limit value, phase II (2010) ^a
EU	335 g/L [2.80 lb/US gal]	413 g/L [3.45 lb/US gal]	500 g/L [4.17 lb/US gal]
US (coatings)	335 g/L [2.80 lb/US gal]	-	-

Calculated according to specific legislation, see details in the Explanatory Notes available at the Hempel website hempel.com or at your local Hempel website. VOC values may vary with shade, please consult the Safety Data Sheet, section 9. ^aEU 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

1736G

Product components

Base 1736U
Curing agent 97043

Standard shade* / code

Grey 19840

Gloss

Flat

Volume solids

65 ± 2%

Specific gravity

2.3 kg/L [19 lb/US gal]

Reference dry film thickness

60 micron [2.4 mils]

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Surface preparation

Cleanliness

- Remove oil, grease and other contaminants by suitable detergent cleaning (e.g. Hempel's Light Clean 99350).
- 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).

Roughness

- Surface profile Medium (G) (ISO 8503-2) / Rugotest No. 3 BN10a-b / Rz 60-100 micron [2.4-4 mils].

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

Application

Mixing ratio

Base 1736U : Curing agent 97043
(8.5 : 1.5 by volume)

It is recommended to use fixed volumes/can size for multi-component products. Before mixing the components, stir them individually to homogeneity.

Thinner

Above 20°C [68°F] Hempel's Thinner 08450
Below 20°C [68°F] Hempel's Thinner 08510

Cleaner

Hempel's Tool Cleaner 99610

Pot life

Product temperature	0°C [32°F]	20°C [68°F]	40°C [104°F]
Pot life	5 hours	4 hours	1½ hours

Application method

Tool	Thinning max vol.	Application parameters
Airless spray	5%	Nozzle pressure: 220 bar [3200 psi] Nozzle orifice: 0.017-0.021"
Air spray	10%	
Brush/Roller	10%	

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
Dry film thickness	40 micron [1.6 mils]	100 micron [3.9 mils]
Wet film thickness	60 micron [2.5 mils]	150 micron [6 mils]
Theoretical spreading rate	16 m²/L [650 sq ft/US gal]	6.5 m²/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. Dry film thickness should not exceed 100 micron [3.9 mils] per coat.

Application conditions

- Temperature of product must be above 15°C [59°F] during application.
- 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.
- Surface temperature must be below 40°C [104°F] during application and curing.
- Relative humidity must be below 95% during application and curing.

Application remarks

- Products containing floating or settling particles/pigments need to be continuously stirred during application. This is especially important in case of heavy thinning.
- If brush or roller application is used, more coats will be necessary to achieve the specified dry film thickness.

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Drying and overcoating

Product compatibility

- Previous coat: None.
- Subsequent coat: None or according to specification.

Drying time

Surface temperature			-10°C [14°F]	0°C [32°F]	20°C [68°F]	40°C [104°F]
Touch dry	min		50	30	10	5
Surface dry	hours		2½	1¾	¾	½
Hard dry	hours		4½	3	1½	½
Through dry	hours		21	5	1½	½
Overcoating with same product	Min Max	hours -	3 Ext*	1½ Ext	¾ Ext	½ Ext

Ext*: Depending on the actual exposure conditions, the coated surface is overcoatable for an extended period of time. Contact your local Hempel representative for advice.

Determined for dry film thickness 60 micron [2.4 mils] at standard conditions, see Hempel's Explanatory Notes for details. The overcoating intervals have been determined at the conditions: atmospheric, medium. The intervals stated in the Specification supersede these values.

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.
- Before overcoating, after exposure in contaminated environment, clean surface thoroughly by high pressure fresh water hosing or by hosing down with fresh water and scrubbing with a stiff brush and allow to dry.

Storage

Shelf life

Ambient temperature	25°C [77°F]	35°C [95°F]
Base	12 months	12 months
Curing agent	36 months	36 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.

Storage conditions

Product must be stored according to local legislation, at maximum 40°C [104°F], without direct sunlight and protected from rain and snow.

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Additional documents

Additional information is available at the Hempel website 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.
- Application Instruction for this product.

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.