

Hempadur Avantguard® 550

Activated zinc epoxy primer

Product description

Hempadur Avantguard 550 is a two-component, activated zinc epoxy primer. Zinc rich in compliance with the requirements for Level 3, type II in SSPC Paint 20, 2002.

The product is a new innovative anti-corrosion coating, which reduces the effects of corrosion and offers advanced protection. It is based on activated zinc and is part of Hempel's new range of high performance protective coatings using the Avantguard technology.

The improved anti-corrosion properties can contribute to reduced maintenance.

Furthermore, Hempadur Avantguard 550 offers excellent stability, sprayability, film formation, drying time and sag resistance. Also, it has self-healing properties, improved mechanical strength and shows visibly less cracking.

Typical applications

As a VOC compliant primer on steel in medium to severely corrosive environments Hempadur Avantguard 550 may be applied on zinc-shopprimed steel, where damaged spots, welds etc. have been power tool cleaned.

Hempadur Avantguard 550 can be used for the same applications as any zinc epoxy without Avantguard technology. In addition, the application techniques and equipment are the same: Airless spray / Air spray / Brush.

Mixing ratio: BASE 1734U: CURING AGENT 97043. 4:1 by volume.

It is less sensitive to application conditions such as humidity and temperature and thus shows less blistering than similar zinc epoxies without Avantguard technology.

Hempadur Avantguard 550 is more tolerant toward high film thicknesses than zinc epoxies without Avantguard technology.



Features	Benefits
Extremely good anti-corrosion properties	Excellent protection - can contribute to reduced maintenance
Extremely good mechanical strength, also in cyclic temperatures	High resistances to cracking in corners, welding seams, e.g. Excellent resistance to abrasion
Self healing properties	Cracks are stopped, even before they develop
No special application technique or equipment needed	No change in production line setup
Very tolerant towards different climatic conditions (high temperature and humidity) during application, as well as to high dry film thickness	Less need of reblasting when having excessive film thickness. Less blistering in spite of high humidity and temperature during application
Drying properties among best in class	Fast throughput, less need for waiting on drying

Typical specification

Typical paint system:

1st coat: Avantguard activated zinc epoxy
50–100 µm (1.6–4 mils)

2nd coat: Epoxy midcoat 100–200 µm (4–8 mils)

3rd coat: Polyurethane topcoat 50–80 µm (2–3.2 mils)

Other typical system combinations could be different combinations of Avantguard and a PU topcoat in a two-coat system.

Physical constants	
Shade nos/Colours:	19840 / Dark grey
Finish:	Flat
Volume solids, %:	65 ±1
Theoretical spreading rate:	10.8 m ² /L [433.1 sq.ft./US gallon] 60 micron/2.4 mils
Flash point:	29 °C [84.2 °F]
Specific gravity:	1.9 kg/litre [16.1 lbs/US gallon]
Surface dry:	10 minute(s) 20 °C/68 °F
Through dry:	1.5 hour(s) 20 °C/68 °F
Fully cured:	7 day(s) 20 °C/68 °F
VOC content:	319 g/L [2.6 lbs/US gallon]
Shelf life:	1 year for BASE and 3 years for CURING AGENT (25 °C/77 °F) from the time of production

The physical constants stated are nominal data according to the Hempel Group's approved formulas. They are subject to normal manufacturing tolerances. This product should be used with reference to the Technical Specifications.



Test results

The increased durability of Hempadur Avantguard 550 has been proven in extensive tests against zinc epoxies without Avantguard technology.

- ✓ ISO 12944 C5M/I, 2007 - certified by COT (Netherlands)
- ✓ Water permeability test
- ✓ Thermal Cycling Resistance test
- ✓ NACE cracking test
- ✓ Hempel welding test

Certificates and approvals

- ✓ ISO 12944 C5M/I, 2007
- ✓ Conforms to type II, level 3, SSPC-Paint 20, 2002

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