Hempathane Topcoat 55210

Product characteristics

Description
Hempathane Topcoat 55210 is a glossy polyurethane topcoat that is cured with aliphatic isocyanate and delivers very good gloss and colour retention.
Complies with EU Directive 2004/42/EC, The Paints Directive on the limitation of volatile organic compounds: subcategory j.

Recommended use
Hempathane Topcoat 55210 is recommended as a finishing coat for protection of structural steel in severely corrosive atmospheric environment, where colour fastness and gloss retention are required.

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.
- Reaction to fire tested (as part of a coating system with approved primer and topcoat) according to EN13501-1 B-s1, d0.

Features
- For severely corrosive atmospheric environment.
- The minimum temperature for curing is -10°C [14°F].
- Glossy with very good gloss and colour retention.

Product safety

Flash point 33°C [91°F]

VOC content mixed product

Legislation	Value
EU	447 g/L [3.73 lb/US gal]
US (coatings)	447 g/L [3.73 lb/US gal]
US (regulatory)	447 g/L [3.73 lb/US gal]
China	447 g/L [3.73 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. [a]EU 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
55210

Product components
Base 55219
Curing Agent 95370

Standard shade / code
White 10000 *

Wide range of colours is available via Hempel’s tinting system.

Gloss
Glossy

Volume solids
51 ± 2%

* Colour stability may be affected by exposure to chemicals, high temperatures or inadequate ventilation.

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

Reference dry film thickness
50 micron [2.0 mils]

Aluminium shade / code
Aluminium grey 19002

Gloss
Please consult Hempel's Guideline on aluminium pigmented coatings.

Volume solids
48 ± 2%

Specific gravity
1.1 kg/L [9 lb/US gal]

Reference dry film thickness
50 micron [2.0 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.

Application

Mixing ratio
Base 55219 : Curing Agent 95370
(7 : 1 by volume)

Stir well before use.

Thinner
Hempel's Thinner 08080

Cleaner
Hempel's Thinner 08080
Hempel's Thinner 08510

Pot life

Product temperature	20°C [68°F]	10°C [50°F]	30°C [86°F]
Pot life	4 hours	6 hours	2½ hours

Application method

Tool	Thinning max vol.	Application parameters
Airless spray	10%	Nozzle pressure: 150 bar [2200 psi] Nozzle orifice: 0.017-0.019"
Air spray	10%	Not Applicable.

If brush or roller application is used, more coats will be necessary to achieve the specified dry film thickness. To comply with Korean VOC regulation, thinning is limited to max. vol. 1%. Hempel's Brush & Roller Agent 99140 can be used to improve levelling. Consult Hempel for advice. Spray data are indicative and subject to adjustment. Pressure is for a material temperature of 20°C [68°F].

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Film thickness

Specification range	Low	High	Recommended
Dry film thickness	40 micron [1.6 mils]	80 micron [3.2 mils]	50 micron [2.0 mils]
Wet film thickness	78 micron [3.1 mils]	157 micron [6.3 mils]	98 micron [3.9 mils]
Theoretical spreading rate	13 m²/L [530 sq ft/US gal]	6.4 m²/L [261 sq ft/US gal]	10 m²/L [407 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

- 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.
- The film formation may be adversely affected by light rain, high humidity and/or condensation during application and the following interval after application: “10 hours, 20°C/68°F”.

Relative Humidity:

- Relative humidity must be below 85% during curing.

Application remarks

- Two coats of the topcoat may be necessary to obtain full hiding power.

Drying and overcoating

Product compatibility

- Previous coat: According to Hempel’s Specification. Recommended products are: Hempaprime Multi 500, Hempadur
- Subsequent coat: None.

Drying time

Surface temperature		-10°C [14°F]	0°C [32°F]	20°C [68°F]	40°C [104°F]
Touch dry	hours	2½	1⅔	¾	⅓
Surface dry	min	-	-	60	-
Fully cured	days	-	-	7	-

Determined for dry film thickness 50 micron [2.0 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]	40°C [104°F]
Atmospheric medium					
Hempathane Topcoat 55210	Min	30 h	18 h	6 h	100 min
	Max	No max	No max	No max	No max

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.
- Condensation on the freshly applied coating should be avoided.

Overcoating details

- The surface must be dry and clean prior to application.

Other remarks

- Hempel’s Specification supersedes any recommendations given in the Product Data Sheets.

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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.

Storage conditions

- The curing agent is sensitive to moisture. Store in a dry place and keep the can tightly closed until use.
- 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)	10 g CO_2e/m^2	0.052 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.
- 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.