Hempalin Enamel 52140

Product characteristics

Description
Hempalin Enamel 52140 is a glossy, general purpose, alkyd topcoat forming a weather resistant coating. The product is flexible and resistant to salt water and spillage of mineral oil and other aliphatic hydrocarbons.
Complies with EU Directive 2004/42/EC, subcategory i.

Recommended use
Hempalin Enamel 52140 is recommended as finishing coat for alkyd systems on exterior and interior steel and woodwork in mildly to moderately corrosive environment e.g. engine rooms including tank tops, main engines and auxiliary machinery.

Service temperature:
- Maximum, dry exposure only: 120°C [248°F].
- Minimum, recommended by Hempel for dry exposure: -50°C [-58°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.

Features
- Glossy, general purpose topcoat.
- For mildly to moderately corrosive environment.
- For exterior and interior usage.

Product safety

Flash point 38°C [100°F]

VOC content

Legislation	Value
EU	431 g/L [3.60 lb/US gal]
US (coatings)	431 g/L [3.60 lb/US gal]
US (regulatory)	431 g/L [3.60 lb/US gal]
China	431 g/L [3.60 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. [a]EU Directive 2004/42/CE. 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.

For professional use only.

Product data

Product code: 52140

Standard shade / code: White 10000 *

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

Gloss: High-gloss

Volume solids: 46 ± 2%

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

Reference dry film thickness: 30 micron [1.2 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.

* The natural tendency of Alkyds to discolour is also reflected in this product. Discoloration can be accelerated by inadequate ventilation, exposure to chemicals, elevated temperatures and low light conditions.

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Application

Mixing ratio
Stir well before use.

Thinner
Hempel's Thinner 08230

Cleaner
Hempel's Thinner 08230

Application method

Tool	Thinning max vol.	Application parameters
Airless spray	5%	Nozzle pressure: 150 bar [2200 psi] Nozzle orifice: 0.018"
Air spray	15%	-
Brush/Roller	5%	-

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%. 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	25 micron [1.0 mils]	40 micron [1.6 mils]	30 micron [1.2 mils]
Wet film thickness	54 micron [2.2 mils]	86 micron [3.5 mils]	65 micron [2.6 mils]
Theoretical spreading rate	19 m²/L [774 sq ft/US gal]	12 m²/L [489 sq ft/US gal]	15 m²/L [611 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 [50°F] during application and curing.

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

Drying and overcoating

Product compatibility
- Previous coat: Recommended product is:
- Subsequent coat: None.

Drying time

Surface temperature		10°C [50°F]	20°C [68°F]	30°C [86°F]	40°C [104°F]
Touch dry	hours	6	2	1	½
Hard dry	hours	14	4	2	1½

Determined for dry film thickness 30 micron [1.2 mils] at standard conditions, see Hempel's Explanatory Notes for details. The natural tendency of Alkyds to discolour is also reflected in this product. Discoloration can be accelerated by inadequate ventilation, exposure to chemicals, elevated temperatures and low light conditions.

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]	40°C [104°F]
Atmospheric medium					
Hempalin Enamel 52140	Min	16 h	8 h	6 h	4 h
	Max	9 d	5 d	4 d	60 h

Overcoating times are indicative for products of the same generic chemistry when applied at the recommended DFT.
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
- Hempel's Specification supersedes any recommendations given in the Product Data Sheets.

Hempalin Enamel 52140

Storage

Shelf life

Ambient temperature	25°C [77°F]
Product	60 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

- Must be stored under absolutely dry conditions, protect against seeping humidity.
- 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)	8.8 g CO_2e/m²	0.046 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.
- Application Instruction for this product.
- Aluminium pigmented topcoats.

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.