Hempel's Silvium

Product characteristics

Description
Hempel's Silvium 51570 is an oleoresinous general purpose aluminium topcoat with good heat resistance and good light reflection. Complies with EU Directive 2004/42/EC, subcategory i.

Recommended use
Hempel's Silvium 51570 is recommended as a finishing coat for protection of hot pipelines, exhaust pipes, smokestacks and other hot surfaces on steel and woodwork in mild to moderately corrosive environment, where an aluminium surface or light reflection is desired.

Service temperature:
- Maximum, dry exposure only: 200°C [392°F].
- Maximum, dry exposure only (peak): 250°C [482°F].
- Minimum, recommended by Hempel for dry exposure: -50°C [-58°F].

Certificates / Approvals
- Complies with US FDA and EU food regulations for contact with dry foodstuff. Consult Hempel for details.

Features
- For exterior and interior usage.
- Delivers aluminium surface and light reflection.

Product safety

Flash point 33°C [92°F]

VOC content

Legislation	Value
EU	493 g/L [4.11 lb/US gal]
US (coatings)	493 g/L [4.11 lb/US gal]
US (regulatory)	493 g/L [4.11 lb/US gal]
China	493 g/L [4.11 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. Measured according to GB/T 23985-2009.

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: 51570

Standard shade / code: Aluminium / Aluminium grey 19000 *

Gloss: Glossy

Volume solids: 38 ± 2%

Specific gravity: 0.9 kg/L [8 lb/US gal]

Reference dry film thickness: 25 micron [1.0 mils]

Surface preparation

Cleanliness
- Remove oil, grease and other contaminants by suitable detergent cleaning.
- Remove salts, detergents and other contaminants by high pressure fresh water cleaning.

New build:
- Abrasive blasting to min. Sa 2 (ISO 8501-1) / SP 6 (SSPC) / NACE No. 3.
- Remove dust, blast media and loose materials.
- Minor areas can be cleaned by power tool to St 2 provided the surface is roughened and not polished.

Maintenance and Repair
- Abrasive blasting to min. Sa 2 (ISO 8501-1) / SP 6 (SSPC) / NACE No. 3.
- Minor areas can be cleaned by power tool to St 2 provided the surface is roughened and not polished.
- Remove dust, blast media and loose materials.

Roughness
- Surface profile Fine (G) (ISO 8503-2).

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

Application

Mixing ratio
Stir well before use.

Thinner
No thinning

Cleaner
Hempel's Thinner 08080

Application method

Tool	Thinning max vol.	Application parameters
Airless spray	No thinning	Nozzle pressure: 100 bar [1500 psi] Nozzle orifice: 0.017"
Air spray	No thinning	-
Brush	No thinning	-

If brush or roller application is used, more coats will be necessary to achieve the specified dry film thickness. Spray application is recommended to achieve a good surface finish. 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]	25 micron [1.0 mils]
Wet film thickness	66 micron [2.6 mils]	106 micron [4.2 mils]	66 micron [2.6 mils]
Theoretical spreading rate	15 m²/L [611 sq ft/US gal]	9.5 m²/L [387 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.

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.
- 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	min	60	30	20	15
Hard dry	hours	9	4	2½	2

Determined for dry film thickness 25 micron [1.0 mils] at standard conditions, see Hempel's Explanatory Notes for details.

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.

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
- 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.

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Carbon Footprint

Dry film thickness	1 µm	1 mil
GWP (Global Warming Potential)	13.1 g CO_2e/m^2	0.068 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 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.
- Surface Preparation.
- 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.