

Contex Thermoguard

Product characteristics

Description

Contex Thermoguard is a waterborne elastomeric, breathable smooth-textured top coat which can reflect near infra-red radiation and also provide thermal insulation in hot climates. The technology used in Contex Thermoguard can keep surfaces cooler and reduce heat build-up in indoor areas, conserve energy, and save the cost of electricity. Contex Thermoguard is formulated on modified pure acrylic binder, which accounts for its excellent anti carbonation property, crack-bridging ability, and excellent adherence to substrate, very high scrub resistance, outstanding UV resistance and weather stability.

Recommended use

Ideal as finishing coat for various exterior building facades where electricity saving and thermal protection are required like commercial and residential buildings, power plants, etc.

Certificates / Approvals

- Tested and assessed according to standard for Fire Test on Building Materials and Structures; determination of the surface spread of flame of products BS 476-7. Class 1

Product safety

Flash point 93°C [199°F]

VOC content

Legislation	Value
EU	24 g/L [0.20 lb/US gal]
US (coatings)	40 g/L [0.33 lb/US gal]
US (regulatory)	80 g/L [0.67 lb/US gal]

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

58620

Standard shade* / code

White 10000 **

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

Gloss

Silk

Volume solids

50 ± 2%

Specific gravity

1.3 kg/L [11 lb/US gal]

Reference dry film thickness

40 micron [1.6 mils]

Surface preparation

Cleanliness

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

New build:

- Concrete must cure completely; for 28 days minimum.
- Moisture content in the surface must be below 4%.

Maintenance and Repair

- Remove dust, loose material and any other contamination.
- Surface imperfections in the substrate must be fixed/filled before paint application.
- Use compatible cementitious repair material for major surface imperfections.
- Apply primer/sealer prior to application of filler.
- Areas with filler to be sealed with primer/sealer.

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

* Other shades are available, refer to Exterior Colour card.

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

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Application

Thinner

Fresh water

Cleaner

Fresh water

Application method

Tool	Thinning max vol.	Application parameters
Airless spray	5%	Nozzle pressure: 150 bar [2200 psi] Nozzle orifice: 0.023-0.025"
Air spray	15%	Nozzle pressure: 4-6 bar [58 psi] Nozzle orifice: 0.07-0.086"
Brush/Roller	5%	Not Applicable.

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	40 micron [1.6 mils]	50 micron [2.0 mils]	40 micron [1.6 mils]
Wet film thickness	79 micron [3.2 mils]	99 micron [4.0 mils]	79 micron [3.2 mils]
Theoretical spreading rate	13 m ² /L [530 sq ft/US gal]	10 m ² /L [407 sq ft/US gal]	13 m ² /L [530 sq ft/US gal]

Application conditions

- Surface temperature must be above 5°C [41°F] during application and curing.
- 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.
- Provide adequate ventilation during application and drying.

Relative Humidity:

- Relative humidity must be below 75% during drying and curing.

Application remarks

- Stir well before use.
- The practical consumption factor may vary depending on application conditions, equipment and workmanship.

Drying and overcoating

Product compatibility

- Previous coat: Recommended products are: Sealing/ Priming:
- Contex Siloxane Acrylic Primer, Contex WB Primer, Contex SB Primer or as specified.

Drying time

Surface temperature		10°C [50°F]	20°C [68°F]	40°C [104°F]
Surface dry	hours	5	3	2
Through dry	hours	10	6	3

Determined for dry film thickness 40 micron [1.6 mils] at standard conditions, see Hempel's Explanatory Notes for details. Any masking tape used during paint application should be removed while the paint is still in the wet condition.

Overcoating

Hempel's specification supersedes any guidelines indicated in the overcoating table

Quality name		10°C [50°F]	20°C [68°F]	40°C [104°F]
Atmospheric mild				
Contex Thermoguard	Min Max	12 h No max	6 h No max	3 h No max

Drying conditions

- To obtain the drying time stated, it is important to maintain sufficient ventilation during application, drying and curing.

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Storage

Shelf life

Ambient temperature	25°C [77°F]
Product	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

- Temperature must not go below 0°C [32°F] during transport and storage.
- 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)	6 g CO ₂ e/m ²	0.031 lb CO ₂ e/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 Certifications and Standards

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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.

Energy saving study from WSP, simulation study
 Thermal transmission, tested according to ASTM C 518
 Solar reflectance index, tested according to ASTM E 903, ASTM G 159, ASTM E 408
 Accelerated weathering (QUV), tested according to ASTM G 151
 Moisture vapor transmission, tested according to BS EN ISO 7783–2
 Liquid water transmission, tested according to BS EN 1062–3
 Carbon dioxide diffusion, tested according to BS EN 1062–6
 Static crack bridging ability, tested according to BS EN 1062–7, method–A
 Shading coefficient calculation (U–value), tested according to ISO 15099
 Fungal resistance, tested according to ASTM G 21
 Adhesion strength, tested according to BS EN 1542
 Chloride ion diffusion, tested according to TP 014/85/2763
 Colour retention, tested according to is 8709
 Flexibility, tested according to ASTM D 522–93A
 Alkali resistance, tested according to ASTM D 1308
 Non-volatile content (VOC), tested according to ASTM D 2369
 Water resistance, tested according to ASTM D 1735
 Tensile strength and elongation percentage, tested according to ASTM D–412–989
 Recoat interval, tested according to ASTM D 1640
 Washability, tested according to ASTM D 4828
 Scrub resistance, tested according to ASTM D 2486
 Hiding power, tested according to ASTM D 2805
 Stability in can, tested according to ASTM D 1849

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.

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