

Hempel's Nexus II US

Product characteristics

Description

Hempel's Nexus II US 27440 is a tie-coat for silicone systems with anticorrosive properties.

Recommended use

Hempel's Nexus II US 27440 is used as a sealer/tie-coat for the Hempaguard®/Hempasil systems.

Maintenance, Antifouling systems: The product is designed for the purpose of recoating old antifouling systems with a Hempaguard®/Hempasil topcoat, creating a link between the existing antifouling system and the Hempaguard®/Hempasil topcoat. This is feasible provided the general condition of the old antifouling system is good.

Maintenance/New Build, Full system: The product is designed to be used as a bridging tie-coat between approved anticorrosive primers and Hempaguard®/Hempasil topcoat. Used in combination with Hempasil Nexus X-Tend 27500 for full coat applications of the Hempaguard®/Hempasil topcoats. Minimum curing temperature for this system is 0°C [32°F].

Product safety

Flash point 12°C [54°F]

VOC content mixed product

Legislation	Value
US (regulatory)	334 g/L [2.79 lb/US gal]
US (coatings)	335 g/L [2.80 lb/US gal]
Canada	335 g/L [2.80 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.

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

27440

Product components

Base 27449
Curing agent 98160
Additive 99710

Standard shade / code

Light grey 11070

Gloss

Semi-flat

Volume solids

55 ± 2%

Specific gravity

1.4 kg/L [11 lb/US gal]

Reference dry film thickness

100 micron [3.9 mils]

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Surface preparation

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 27449 : Curing agent 98160 : Additive 99710
(13.9 : 3.6 : 2.5 by volume)

Thinner

No thinning

Cleaner

Hempel's Thinner 08450
Hempel's Tool Cleaner 99610

Pot life

Product temperature	0°C [32°F]	20°C [68°F]	40°C [104°F]
Pot life	60 min	60 min	60 min

Application method

Tool	Thinning max vol.	Application parameters
Airless spray	No thinning	Nozzle pressure: 150 bar [2200 psi] Nozzle orifice: 0.019-0.021"
Brush/Roller	No thinning	Not Applicable.

After cleaning, prior to application, flush the pump and hose with Hempel's Thinner 08080. Spray data are indicative and subject to adjustment. Pressure is for a material temperature of 20°C [68°F].

Film thickness

	Recommended
Dry film thickness	100 micron [3.9 mils]
Wet film thickness	190 micron [0.5 mils]
Theoretical spreading rate	5.5 m ² /L [220 sq ft/US gal]

Checking paint consumption per area can improve the control of film thickness.

Application conditions

- Temperature of product must be above 15°C [59°F] during application.
- Optimal paint temperature for proper mixing, pumping and spraying is: 20°C [68°F].
- 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.
- According to Hempel's Specification.

Relative Humidity:

- Relative humidity must be in the range 30-85% during application.
- Relative humidity must be in the range 30-85% during curing.

Application remarks

- The practical consumption factor may vary depending on application conditions, equipment and workmanship.
- Checking paint consumption per area can improve the control of film thickness.
- Consult Hempel's Guidelines for application of silicone systems.
- Do not open or mix the cans before the paint will be applied.

Drying and overcoating

Product compatibility

- Previous coat: According to Hempel's Specification.
- Subsequent coat: According to Hempel's Specification.

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Drying time

Surface temperature		10°C [50°F]	20°C [68°F]	30°C [86°F]
Hard dry	hours	3	2	1¼
Fully cured	days	10	7	4

Determined for dry film thickness 100 micron [3.9 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		0°C [32°F]	10°C [50°F]	20°C [68°F]	30°C [86°F]
Immersion					
Hempasil Nexus	Min	6 h	5 h	4 h	3 h
X-Tend 27500	Max	60 h	60 h	60 h	60 h
Hempaguard X7	Min	-	12 h	6 h	4 h
89900	Max	-	36 h	36 h	36 h
Hempablue 87750	Min	-	12 h	6 h	4 h
	Max	-	36 h	36 h	36 h

Consult Hempel's specification for more information.

Drying conditions

- Condensation on the freshly applied coating should be avoided.

Overcoating details

- In case the product has to be overcoated by itself, application must be wet in wet.

Storage

Shelf life

Ambient temperature	25°C [77°F]
Base	18 months
Curing agent	18 months
Additive	12 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

- Product must be stored according to local legislation, at maximum 40°C [104°F], without direct sunlight and protected from rain and snow.

Carbon Footprint

Dry film thickness	1 µm	1 mil
GWP (Global Warming Potential)	8.9 g CO ₂ e/m ²	0.046 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.

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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.
- Surface Preparation.
- Application Instruction for this product.
- General guidelines for application of Hempaguard /Hempasil coating systems.

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.