

BAYMER[®] SPRAY 270 E

(Trial product)

General Properties and Applications

BAYMER[®] SPRAY 270 E is the polyol component that form, together with isocyanate DESMODUR[®] 44V20L, a polyurethane system that is used to form a rigid foam of high density and close cells to be applied as a spray foam. The main use of this foam is the thermal insulation of walls and outer flat roofs.

The system composed of the BAYMER[®] SPRAY 270 E and the isocyanate DESMODUR[®] 44V20 L meets the standard UNE-EN 14315-1:2013, UNE-EN 13172:2012 and complies with the CE labelling according to the declaration of performance N° 0006-01-CPR-2017.

Sampling Avoid access of humidity

Provisional Specification

Property	Value	Unit of measurement	Method
Hydroxyl content	210 ± 20	mg KOH/g	LPUR-007
Water content	3,2 ± 0,3	%	LPUR - 001
Viscosity @ 25 °C	425 ± 125	mPa·s	LPUR - 002

Other Data*

Property	Value	Unit of measurement	Method
Density at 23°C	approx. 1,12	g/cm ³	LPUR - 050

* These values provide general information and are not part of the product specification

Packaging

Drums (225 kg)

Storage

Keep the container tightly closed in a cool, well-ventilated place. Store between 15 and 25°C and keep away from food and other feeding stuff.

Under these conditions, the BAYMER[®] SPRAY 270 E, stability is 3 months after delivery date, if stored in sealed, moisture-tight containers.

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Labeling and REACH applications

This product data sheet is only valid in conjunction with the latest edition of the corresponding Safety Data Sheet. Any updating of safety-relevant information – in accordance with statutory requirements – will only be reflected in the Safety Data Sheet, copies of which will be revised and distributed. Information relating to the current classification and labeling, applications and processing methods and further data relevant to safety can be found in the currently valid Safety Data Sheet.

Directions for Processing

Recommended mixing ratio (volume parts):

BAYMER [®] SPRAY 270 E	100
DESMODUR [®] 44V20 L	100

Manual foam test

(internal laboratory methods): AT·C-011

Cream time CT (21):	3 ± 1 s
Gel time GT (21):	6 ± 2 s
Tack free time TFT (21):	8,5 ± 2,5 s
Free rise density FRB (21):	38 ± 2 kg/m ³

BAYMER[®] SPRAY 270 E must be thoroughly homogenised before processing.

Processing

BAYMER[®] SPRAY 270 E should be mixed with the isocyanate component, DESMODUR[®] 44V20 L, with an appropriate machine in 1 to 1 volumetric ratio. The density of obtained foam depends on the actual conditions during the application process and also on the spraying technique.

The ambient temperature and moisture as well as the temperature and nature of the sprayed surface have a significant influence according to the UNE-EN 14315-2:2013:

The installer must inspect the work including checking the condition of the substrate, its consistency, presence of dust, water and grease that may interfere with the adhesion, presence of dilatation joints or vents, and in case of metal substrates, the existence of an adequate corrosion protection. The substrate must be clean and degreased. For substrate with adhesion problems, has to be applied a primer.

The minimum temperature of the substrate should be approx. above 20°C. In case of porous substrates, the substrate humidity will be ≤ 20%, in case of non-porous substrates, the substrate should not form superficial water condensation.

The mixing ratio machine would have to be checked the previous month and must not differ by more than 5% by weight from the reference. The temperatures of the components of the machine and hoses should be about 30-50°C and pressures of 50-100 bar.



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The application will take place in successive layers of maximum thickness of 20mm.

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Requirements for all applications

Properties	Performance	Standard
Thermal resistance and thermal conductivity:	See performance chart in DoP	EN 14315-1:2013
Durability of reaction to fire against ageing / degradation:	Reaction to fire does not decrease with time	EN 14315-1:2013
Durability of thermal resistance against ageing / degradation:	See performance in DoP	EN 14315-1:2013
Durability of compressive strength against ageing / degradation:	Compression strength does not decrease with time	EN 14315-1:2013
Closed cell content (%):	≥ 90%, CCC-4	EN 14315-1:2013
Reaction to Fire:	Euroclass E	EN 13501-1

The methods described in this publication for testing the fire performance of polyurethane and the results quoted do not permit direct conclusions to be drawn regarding every possible fire risk there may be under service conditions. Furthermore, this does not release the producer of the finished parts from his obligation to carry out suitable tests on his end product with respect to fire performance and/or fire risk in order to guarantee conformity with the required fire safety standard.

Requirements for specific applications

Properties	Performance	Standard
Compressive strength:	≥ 200kPa	EN 826:2013
Water vapour transmission (expressed as water vapour resistance factor, μ):	95	EN 12086:2013
Determination of short term water absorption by partial immersion (expressed in kg/m^2):	<0.25	EN 1609-2013
Continuous glowing combustion	No performance declared (NPD)	No harmonized test method available

These values are given only as a guide and must be verified in each individual case on finished parts manufactured under the processor's production conditions.



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This is a trial product. Further information, including amended or supplementary data on hazards associated with its use, may be compiled in the future. For this reason no assurances are given as to type conformity, processability, long-term performance characteristics or other production or application parameters. Therefore, the purchaser/user uses the product entirely at his own risk without having been given any warranty or guarantee and agrees that the supplier shall not be liable for any damage, of whatever nature, arising out of such use. Commercialisation and continued supply of this material are not assured. Its supply may be discontinued at any time.

This product is not designated as „Medical Grade“ (1) and therefore shall not be considered a candidate for the manufacture of a medical device or of intermediate products for medical devices, which are intended under normal use to be brought into direct contact with the patient's body (e.g., skin, body fluids or tissues, including indirect contact to blood)*. [This product is also not designated for Food Contact (2), including drinking water, or cosmetic applications. If the intended use of the product is for the manufacture of a medical device or of intermediate products for medical devices, for Food Contact products or cosmetic applications Covestro must be contacted in advance to provide its agreement to sell such product for such purpose.] Nonetheless, any determination as to whether a product is appropriate for use in a medical device or intermediate products for medical devices, for Food Contact products or cosmetic applications must be made solely by the purchaser of the product without relying upon any representations by Covestro.

1) Please see the "Guidance on Use of Covestro Products in a Medical Application" document.

2) As defined in Commission Regulation (EU) 1935/2004.

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