

# Baymer<sup>®</sup> Spray 205

## General Properties and Applications

BAYMER<sup>®</sup> SPRAY 205 is the polyol component that forms, together with the isocyanate DESMODUR<sup>®</sup> 44V20 L, a polyurethane system that is used to form a rigid foam of a free rise density of 40 kg/m<sup>3</sup> to be applied as a spray foam.

The system composed of the BAYMER<sup>®</sup> SPRAY 205 and the isocyanate DESMODUR<sup>®</sup> 44V20 L meets the standard UNE-EN 14315-1:2013, UNE-EN 13172:2012 as certified by the Spanish Association for Standardisation and Certification (AENOR) with certificate N<sup>o</sup> 020/003658 so, it can be labeled with the AENOR N mark. Likewise, this system complies with the CE labelling according to the declaration of performance N<sup>o</sup> 0003-01-CPR-2014.

The main use of this foam is the thermal insulation of buildings.

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### Sampling

Avoid access of humidity

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### Specification

Property	Value	Unit of measurement	Method
Hydroxyl number	250 ± 30	mg KOH/g	LPUR - 048
Water content	2,1 ± 0,1	%	LPUR - 001
Viscosity @ 25 °C	350 ± 200	mPa·s	LPUR - 002

### Other Data\*

Property	Value	Unit of measurement	Method
Density at 23°C	approx. 1,2	g/cm <sup>3</sup>	LPUR - 050

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

### Packaging

Drums (240 kg)

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### Storage

Recommended storage temperature: 15 - 25°C. Storage stability: 3 months, providing that the product is stored moisture protected, in closed drums.

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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 <sup>®</sup> SPRAY 205	100
DESMODUR <sup>®</sup> 44V20 L	100

### Manual foam test (internal laboratory methods): AT RP-20

Cream time CT (21):	2 ± 1 s
Gel time GT (21):	5 ± 2 s
Tack free time TFT (21):	8 ± 3 s
Free rise density FRB (21):	40 ± 2 kg/m <sup>3</sup>

## Processing

BAYMER<sup>®</sup> SPRAY 205 should be mixed with the isocyanate component, DESMODUR<sup>®</sup> 44V20 L, with an appropriate machine in 1 to 1 volumetric ratio. The density of the 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 substrate temperature should be  $\geq 5^{\circ}\text{C}$ . In case of porous supports, the substrate humidity will be  $\leq 20\%$ , in case of non-porous substrates, the support 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.

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	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 chart	EN 14315-1:2013
Durability of compressive strength against ageing / degradation:	Compressive strength does not decrease with time	EN 14315-1:2013
Closed cell content (%):	≥ 90%, CCC4	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:	≥ 200 kPa, CS(10\Y)200	EN 826:2013
Water vapour transmission (expressed as water vapour resistance factor, $\mu$ ):	110	EN 12086:2013

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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The manner in which you use and the purpose to which you put and utilize our products, technical assistance and information (whether verbal, written or by way of production evaluations), including any suggested formulations and recommendations, are beyond our control. Therefore, it is imperative that you test our products, technical assistance and information to determine to your own satisfaction whether our products, technical assistance and information are suitable for your intended uses and applications. This application-specific analysis must at least include testing to determine suitability from a technical as well as health, safety, and environmental standpoint. Such testing has not necessarily been done by us. Unless we otherwise agree in writing, all products are sold strictly pursuant to the terms of our standard conditions of sale which are available upon request. All information and technical assistance is given without warranty or guarantee and is subject to change without notice. It is expressly understood and agreed that you assume and hereby expressly release us from all liability, in tort, contract or otherwise, incurred in connection with the use of our products, technical assistance, and information. Any statement or recommendation not contained herein is unauthorized and shall not bind us. Nothing herein shall be construed as a recommendation to use any product in conflict with any claim of any patent relative to any material or its use. No license is implied or in fact granted under the claims of any patent.

This product is not designated as „Medical Grade“\* 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)\*. If the intended use of the product is for the manufacture of a medical device or of intermediate products for medical devices, Bayer MaterialScience AG 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 must be made solely by the purchaser of the product without relying upon any representations by Bayer MaterialScience AG. \* Please see the "Guidance on Use of Bayer MaterialScience Products in a Medical Application" document. In case of questions, please contact: [productsafety@bayerbms.com](mailto:productsafety@bayerbms.com)

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