

Baymer[®] Spray AL747

General Properties and Applications

Baymer[®] Spray AL 747 is a blend which contains polyols, catalyst and a blowing agent. The applied blowing agent does not deplete the ozonlayer (ODP=0). Together with isocyanate Desmodur[®] 44 V 20 L it reacts to form a rigid polyurethane foam.

The material is to be processed using an airless spray technique and is used as a thermal insulation material for buildings.

Applied in the correct manner, this foam has:

- An applied density of $60 \pm 8 \text{ kg/m}^3$
- Thermal resistance according EN 14315-1:2013:
 - 0.026 W/mK at a thickness $d_n \leq 80 \text{ mm}$
 - 0.027 W/mK at a thickness $d_n > 80 \text{ mm}$
- Fire classification E according DIN EN13501-1
- Compressive strenght: $> 400 \text{ kPa}$ (CS (10/Y)400) according EN 826:2013

Typical data (no specification)

Property	Unit	Value	Method
Density at 20°C	kg/m ³	1214	EN-ISO 2811-2
Viscosity at 25°C	mPa.s	480	PET-10-01
Colour		Brown	

Packaging

Baymer[®] Spray AL 747 is available in:

- Drums (240 kg)
- IBC (1100kg)

Storage

Recommended storage temperature: 15 - 25°C.

Storage stability: 6 months

Store the material in its original sealed packaging in a dry well ventilated area not exposed to direct sunlight and other weather conditions and in compliance with local safety regulations.

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.

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Directions for Processing

Recommended mixing ratio	Volume	Weight
Baymer [®] Spray AL 747	100	100
Desmodur [®] 44 V 20 L	100	101,4

Manual foam test	Internal lab. meth.; PET-55-02 20°C:
Start time	4 s
Gel time	11 s
Tack free time	14 s
Free rise density	45,2 kg/m ³

Note: above mentioned values, are typical values measured under laboratory conditions.

Component temperature	60 - 65°C
Substrate temperature	> 15°C
Thickness of layers	< 2 cm

Baymer[®] Spray AL 747 should be mixed with the isocyanate component, Desmodur[®] 44 V 20 L, using an appropriate machine and gun in a 1 to 1 volumetric ratio. The density of the obtained foam depends on the actual conditions during the application process as well as on the spraying technique. With increasing layer thickness and temperature the density will decrease.

All to be sprayed substrates must be free from dirt, grease, oil and moisture prior to the application. Moisture in any form, like rain, fog, ice or a high air humidity (> 70% RH), will react chemically and will adversely affect system performance and corresponding physical properties. Application should not take place at an ambient temperature below 3°C of the dew point. Primers may be necessary dependent upon conditions; consult a Bayer Material Science Technical Service Representative. Wind velocities in excess of 18 km/hr may result in excessive loss of exotherm and interfere with the mixing efficiency, affecting foam surface, cure, physical properties; and will cause overspray. Precautions must be taken to prevent damage to adjacent areas from overspray.

The maximum thickness of the layers is 4 cm. The next layer is to be applied after the previous layer has cooled down to appr. 30°C to prevent build up of heat.

When bagshots are made to flush the machine, these bagshots should not have a diameter larger than 30 cm, also to prevent heat build up.



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Certificates

Dibt zulassung

Z-23.11-1559

Safety precautions

The reaction product of Baymer[®] Spray AL 747 and Desmodur[®] 44 V 20 L is an organic combustible product. If exposed to fire and/or heat it may present a fire risk in certain applications. Do not use welding or cutting equipment, flame or any other ignition source on or immediately adjacent to the exposed foam.

With respect to safety precautions during application, please refer to:

- The currently valid Safety Data Sheet
- Our Product Stewardship program
- PU- Europe Product Stewardship program

Fluorinated Gases Regulation

This product contains fluorinated hydrocarbons, which are subject to EU Regulations No. 517/2014.

Fire performance testing

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 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 the fire performance and/or fire risk in order to guarantee conformity with the required fire safety standard.

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, information and recommendations 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 Covestro. 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“ (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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 **Baymer[®]**

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