



Baymer[®] Spray AL747

General Properties and Applications

Baymer[®] Spray AL 747 is the polyol component that contains HFC as a blowing agent. Together with the isocyanate Desmodur[®] 44 V 20 L it forms a polyurethane system that is used to form a rigid foam of an applied density of approximately 60 kg/m³. This system is to be applied as a spray foam. The main use of this foam is Spray; Roofing; B2.

Applied in an appropriate way this foam meets the B2 (DIN 4102) and Class E (EN 13501-1) fire requirement according to our internal tests.

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.

Typical data

Property	Unit	Value	Method
Density at 20°C	kg/m ³	1210	Calculated
Viscosity at 25°C	mPa.s	480	PET-10-01
Colour		Brown	R-49

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

Packaging

Drums, IBC, Bulk

Storage

Storage temperature 15 - 25°C
Storage Stability 6 months

Store the materials in a dry well ventilated area out of the weather and direct sunlight and in compliance with local safety requirements

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):	(weight parts):
Baymer [®] Spray AL 747	100	100
Desmodur [®] 44 V 20 L	100	102



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Manual foam test

(internal lab. meth.; PET-55-02
20°C):

Start time:	4 s
Gel time:	9 s
Tack free time:	12 s
Free rise density:	43.5 kg/m ³

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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Processing

Baymer[®] Spray AL 747 should be mixed with the isocyanate component, Desmodur[®] 44 V 20 L, with an appropriate machine and gun in an 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.

All substrates to be sprayed must be free of dirt, soil, grease, oil and moisture prior to the application. Moisture in any form: excessive humidity (>70%R.H.), rain, fog, or ice will react chemically and will adversely affect system performance and corresponding physical properties. Application should not take place when the ambient temperature is within 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 per hour 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.

Machine	Medium- and high pressure machines
Component temperature	[°C] 45-50
Substrate temperature	[°C] 15 - 40
Maximum pass thickness	[cm] <2
next pass interval	minutes 3-5
Air humidity	[%] <70



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Safety precautions

Too thick pass or too short time between passes could give foam scorching and foam fire due to the exothermic reaction.

The reaction product of Baymer[®] Spray AL747 with Desmodur[®] 44 V 20 L gives 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.

During spraying the safety threshold concentration of some of the components is in most cases exceeded. Therefore we highly recommend the use of the right personal protective equipment especially respirator protection.

Fire Hazard. Fires involving either of these components or the final foam may be extinguished with carbon dioxide, dry chemical, or inert gas. Application of large quantities of water spray is recommended for spill fires. Personnel fighting the fire must be equipped with approved self-contained breathing apparatus.

This information and our technical advice - whether verbal, in writing or by way of trials - are given in good faith but without warranty, and this also applies where proprietary rights of third parties are involved. Our advice does not release you from the obligation to check its validity and to test our products as to their suitability for the intended processes and uses. The application, use and processing of our products and the products manufactured by you on the basis of our technical advice are beyond our control and, therefore, entirely your own responsibility. Our products are sold in accordance with the current version of our General Conditions of Sale and Delivery.

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