



Baymer[®] AL 790

General Properties and Applications

Baymer[®] AL 790 is the polyol component which contains water as the blowing agent. Together with the isocyanate Desmodur[®] 44 V 20 L it forms a polyurethane system that is used to form an open celled rigid foam of an applied density of approximately 11 kg/m³. This system is to be applied for insulation of cavity walls foam.

Applied in an appropriate way this foam meets the B3 (DIN 4102) fire requirement and has a lambda value of 0.037 W/m.K according to our internal tests.

Typical data

Property	Unit	Value	Method
Density at 20°C	kg/m ³	1060	Calculated
Viscosity at 25°C	mPa.s	850 - 1000	PET-10-01
Colour		Yellow	R-49

Packaging

Drum, IBC, Bulk

Storage

Storage temperature	15 - 25°C
Storage Stability	02 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 [®] AL 790	100	100
Desmodur [®] 44 V 20 L	100	115.9

Manual foam test

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

Start time:	18 s
Gel time:	78 s
Tack free time:	115 s
Free rise density:	9.5 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[®] AL 790 should be mixed with the isocyanate component, Desmodur[®] 44 V 20 L, with an appropriate machine and gun in the appropriate volumetric ratio. The density of the obtained foam depends on the actual conditions during the application process and on the pouring technique.

Machine	Medium- and high pressure machines
Component temperature	[°C] 30 - 35
Substrate temperature	[°C] >15
Thickness range	[cm] 30 cm
Air humidity	[%] <70
Next pass interval	1 min. / cm + tack free time

Safety precautions

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

The reaction product of Baymer[®] AL 790 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.

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.

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.

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.

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, Baysystems B.V. 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 Baysystems B.V...* Please see the "Guidance on Use of Bayer MaterialScience Products in a Medical Application" document. In case of questions, please contact: productsafety@bayerbms.com

Editor: Bayer B.V.
Korte Groningerweg 1A,
NL-9607 PS Foxhol
www.bayermaterialscience.com

Contact :
Smit, Mark
Tel. +31 598 317 901