PRODUCT DATASHEET

PLIXXENT.

PLIXXOPOL® SF 8721W

Introduction & Application

PLIXXOPOL® SF 8721W is the polyol component that forms, together with the isocyanate DESMODUR® 44V20 L, a polyurethane system that is used to form a rigid foam of a free rise density of 36 kg/m³ to be applied as a spray foam.

The system composed of the PLIXXOPOL® SF 8721W and the isocyanate DESMODUR® 44V20 L complies with the CE labelling according to the declaration of performance Nº 0007-03-CPR-2025.

The main use of this foam is the thermal insulation of buildings: walls and roofs

PLIXXOPOL® SF 8721W is water based system and does not contain Hydrofluorolefins (HFO).

Typical Characteristics

Polyol component PLIXXOPOL® SF 8721W:				
*Appearance	at 25°C	brownish liquid		
*Density	at 23°C	approx. 1,107	g/cm³	LPUR-050
Viscosity	at 25°C	225 ± 125	mPas*s	LPUR-002
OH-number		210 ± 20	mg KOH/g	LPUR-007
Water content		2.9±0.3	%	LPUR-001

Isocyanate component DESMODUR® 44V20L:				
*Appearance	at 25°C	brown liquid		
*Density	at 20°C	approx. 1,23	g/cm³	
Viscosity	at 25°C	160 - 240	mPas*s	MDI-01-02
NCO-content		30,5 – 32,5	%	MDI-01-01
Acidity		max. 200	ppm HCl	MDI-01-03

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

General Processing Instructions

Access to moisture should be avoided when sampling the product.

Processing formulation:

PLIXXOPOL® SF 8721W	100 parts by weight	100 parts by volume
DESMODUR® 44V20L	112 parts by weight	100 parts by volume

We recommend the following temperature ranges for processing:

PLIXXOPOL® SF 8721W	30 - 50°C
DESMODUR® 44V20L	30 - 50°C

Edition 2025-04-01 15:00

PLIXXOPOL® SF 8721W

Processing Details

Following reaction profile was determined in laboratory trials at a raw material temperature of 23°C:

Cream time CT (21)	3 ± 1 s
Gel time GT (21)	6± 2 s
Tack free time TFT (21)	8± 2 s
Fee rise density FRB (21)	36 ± 2 kg/m³

PLIXXOPOL® SF 8721W should be mixed with the component isocyanate, DESMODUR® 44V20L, using an appropriate machine in a mixing volumetric ratio 100:100. The foam density not only will depend on the existing conditions during the foaming but also on the spray method.

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.

After applying the product, it is important to pay attention to the machine cleaning to avoid a contamination in the next use of a different system with same machine.

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 at least 5ºC. In case of porous substrates, the humidity of the substrate will be ≤ 20%, in case of non-porous substrates, the substrate should not present surface 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 30-50ºC and pressures of 50-100 bar.

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

Mechanical Properties

The test specimens required for testing mechanical properties were cut from sample sheets manufactured by Hydraulic high-pressure equipment (GAMA H-20/35-GE) and model of gun GAN in the Pilot Plant. These sheets were made using the formulation- and process-data given above with DESMODUR® 44V20L. The properties given are obtained from individual tests.

PLIXXOPOL® SF 8721W

Requirements for all applications

Property		Method
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

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

Requirements for specific applications

Property		Method
Compressive strength:	≥ 200kPa	EN 826:2013
Water vapour transmision expressed as water vapour resistance factor, μ):	60	EN 12086:2013
Determination of short term water absorption by partial immersion (Expressed in kg/m2)	<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.

Additional requirements

EN ISO 13501-1 (Fire classification of construction products)

When correctly processed rigid foams based on PLIXXOPOL® SF 8721W can achieve an Euroclass E flammability rating according EN ISO 13501-1 (2007+A1:2009).

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.

Other Remarks

The use of other Isocyanates and catalysts is not advisable. If customized formulations are required, however, our technical support staff can offer additional advice.

PLIXXOPOL® SF 8721W

Storage, Handling & Preparation

The recommend storage temperature should be 20°C and keep away from food and other feeding stuff. Keep the container tightly closed in a cool, well-ventilated place.

Under these conditions, the shelf life of the product is 3 months after delivery date, if stored in sealed, moisture-tight containers.

Safety Instructions

When working with liquid polyols, isocyanates and/or with additives, wear suitable safety equipment in accordance with the potential health hazards involved. In addition, avoid direct skin contact with freshly manufactured polyurethane products, eg when handling or processing directly after demoulding. For more detailed information, refer to the Safety Data Sheets of the components processed.

Labelling and REACH applications

This Technical 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 which will be revised and distributed. Information relating to the current classification and labelling, applications and processing methods and further data relevant to safety can be found in the currently valid Safety Data Sheet processed.

Editor Plixxent S.L.U.
Poligono Quimico Sur
Ctra. Vilaseca-Pineda s/n
43110 La Canonja, Tarragona, Spain
www.plixxent.com

Contact
e-mail: benjamin.meseguer@plixxent.com