

Technical Data Sheet



We create chemistry

Elastolit® D 8257/103/LT

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Application

Two-component system for the production of rigid integral skin foam parts for technical mouldings in the density 500 at 700 kg/m³. After addition of ammoniumpolyphosphate (e.g. Exolit 422) the mouldings according to UL 94 V-0. The system is listed as Elastolit D 8257/2 FR under File no. E 65201 at Underwriters Laboratories Inc.

Chemical Characteristics

Polyol-Component: Preparation based on: polyol, catalyst, propellant, flameproofing agent, additives
Iso-Component: Preparation based on: P-MDI = Iso 118/4
C-Component: Ammoniumpolyphosphat

Supply

The type of supply for the components will be decided after consultation with our Sales Office.

Storage, Preparation

Polyurethane components are moisture sensitive. Therefore they must be stored at all times in sealed, closed containers. The A-component (Polyol) must be homogenised by basic stirring before processing. More detailed information should be obtained from the separate data sheet entitled "Information for in-coming material control, storage, material preparation and waste disposal" and from the component data.

Possible Hazards

The B-component (Isocyanate) irritates the eyes, respiratory organs and the skin. Sensitisation is possible through inhalation and skin contact. MDI is harmful by inhalation. On processing these, take note of the necessary precautionary measures described in the Material Safety Data Sheets (MSDSs). This applies also for the possible dangers in using the A-component (Polyol) as well as any other components. See also our separate information sheet "Safety- and Precautionary Measures for the Processing of Polyurethane Systems." Use our Training Programme "Safe Handling of Isocyanate."

Waste Disposal

More detailed information is provided in our country-specific pamphlet.

Consumer articles, medical products

There are national and international laws and regulations to consider if it is intended to produce consumer articles (e.g. articles that necessitate food or skin contact, toys etc.) or medical objects out of BASF products. Where these do not exist, the current legal requirements of the European Union for consumer articles as well as medical products should be sufficient. Consultation with our Sales Office and our Ecology and Product Safety Department is strongly recommended.

Component Data

Characteristics	Unit	Polyol-Comp	Iso-Comp.	Method
Density (25°C)	g/cm ³	1.04	1.23	G 133-08
Viscosity (25°C)	mPa·s	1180	275	G 133-07
Shelf-life	months	3 *	6	

* Storage temperature of the polyol-component must not exceed 45 °C!

Typical Processing Data

Cup Test

Characteristics	Unit	Value	Method
Temperature	°C	20	
Weights	g	A = 83.2 B = 106.5	
Cream time	sec.	65	G 132-01
String time	sec.	110	
Rise time	sec.	145	
Free rise density	kg/m ³	220	

Maschine Processing

Characteristics	Unit	Value	Method
Mixing ratio A : B	pbw	A = 100 B = 128	
Material temperature	°C	28 - 35	
Mould temperatur	°C	50 - 65	
Moulding density	kg/m ³	500 - 700	

When processing the polyolcomponent we recommend 20 – 30% by volume aeration.

Processing Formulation for Elastolit D 8257/2 FR

100 pbw Elastolit D 8257/103/LT
15 pbw Ammoniumpolyphospate
128 pbw Iso 118/4

Typical Physical Properties

Characteristics	Unit	Measured value		Method
		No	Yes	
Fire retardant		No	Yes	
Mixing ratio		A : B = 100 : 128	(A + C) : B = 100 : 112	
Density	kg/m ³	600	600	DIN EN ISO 845
Surface-hardness	Shore D	68	68	DIN ISO 7619-1
Flexural strength	MPa	35	32	DIN EN ISO 178
Flexural modulus	MPa	1050	1000	
Tensile strength	MPa	18	17	DIN EN ISO 527 - 2
Elongation	%	4	4	
Tensile modulus	MPa	830	730	
Impact strength	kJ/m ²	13	10	DIN EN ISO 179
Compressive strength by 10% compression	N/mm ²	21	20	DIN EN ISO 826
Dimensional heat stability by flexural stress	°C	100	100	DIN 53432
Shrinkage	%	0.60	0.50	-

Electrical properties at a density of 600 kg/m³

Comparative tracking resistance CTI		600	IEC 112
Specific volume resistivity	Ohm-cm	1.5 · 10 ¹⁶	DIN 53482
Surface resistance	Ohm	> 10 ¹⁰	
Dielectric strength	KV/mm	21	DIN 53481

The mechanical properties were measured on machine cast test plates (Thickness: 10 mm). The test plates were cast in a heated aluminium mould (Mould temperature: 60°C, demoulding time: 5 Min).

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