

URETHANE CASTING FOR TECHNICAL AND PROTOTYPES PARTS

FLEXURAL MODULUS 1,500 MPa - Tg 75°C

APPLICATIONS

Used by casting in silicone moulds for the realisation of prototype parts and mock-ups whose mechanical properties are close to those of thermoplastics.

PROPERTIES

- Low viscosity
- Long pot-life Good mechanical properties

- Can be painted
- Thermoplastic aspect

PHYSICAL PROPERTIES							
			PART A	PART B	MIXING		
Composition			ISOCYANATE	POLYOL			
Mixing ratio by weight			100	100			
Aspect			liquid	liquid	liquid		
Colour			light to dark amber	yellow straw	Off-white		
Viscosity at 25°C	(mPa.s)	BROOKFIELD LVT	60	175	100		
Specific gravity at 25°C Specific gravity at 23°C		ISO 1675 :1975 ISO 2781 :1988	1.15 -	1.02 -	- 1.06		
Pot life at 25°C on 200g	(min.)	-			15		

PROCESSING

Weigh according to the indicated ratio. Mix until a homogeneous and transparent mixing is obtained. Degas for 5 minutes.

Cast in a silicone mould at room temperature or pre-heated at 35 - 40°C to accelerate the process. After demoulding cure 2 hours at 70°C in order to obtain the optimal properties.

PRECAUTIONS

Normal health and safety precautions should be observed when handling these products:

- . ensure good ventilation
- . wear gloves and safety glasses

For further information, please consult the product safety data sheet.

Page 1/2-21 Mar. 2007

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MECHANICAL PROPERTIES AT 23°C AFTER HARDENING (1)						
Flexural modulus of elasticity	ISO 178 :2001	MPa	1,500			
Maximal flexural strength	ISO 178 :2001	MPa	55			
Maximal tensile strength	ISO 527 :1993	MPa	40			
Elongation at break	ISO 527 :1993	%	20			
CHARPY impact strength	ISO 179/2D :1994	kJ/m ²	25			
Hardness - at 23°C - at 80°C	ISO 868 :1985	Shore D1	74 65			

THERMAL & SPECIFIQUES PROPERTIES						
Glass temperature transition (1)	TMA METTLER	°C	75			
Linear shrinkage (1)	-	mm/m	4			
Maximal casting thickness	-	Mm	5			
Demoulding time @ 23°C	-	Hours	4			
Complete hardening time @ 23°C	-	days	4			

⁽¹⁾ Average values obtained on standard specimens/Hardening 12 hr at 70°C

STORAGE

Shelf life is 6 months for PART A (Isocyanate) and 12 months for PART B (Polyol) in a dry place and in original unopened containers at a temperature between 15 and 25° C. Any open can must be tightly closed under dry nitrogen blanket.

PACKAGING

Isocyanate (Part A) Polyol (Part B)

 $1 \times 5.0 \text{ kg}$ $1 \times 5.0 \text{ kg}$

GUARANTEE

The information of our technical data sheet are based on our present knowledge and the result of tests conducted under precise conditions. It is the responsibility of the user to determine the suitability of AXSON products, under their own conditions before commencing with the proposed application. AXSON refuse any guarantee about the compatibility of a product with any particular application. AXSON disclaim all responsibility for damage from any incident which results from the use of these products. The guarantee conditions are regulated by our general sale conditions.

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