

# POLYURETHANE CASTING ELASTOMER

HARDNESS 50 - SHORE A - COLD CURING

# **DESCRIPTION**

Casting resin for every parts requesting high softness and elasticity properties (selas, negatives, moulds with undercuts).

# **PROPERTIES**

- Low viscosity
- Low moisture sensitivity

- Good ageing resistance
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PHYSICAL PROPERTIES						
Composition		ISOCYANATE	POLYOL	MIXED		
Mix ratio by weight Mix ratio by volume at 25 ℃		100 100	40 42			
Aspect		Liquid	Liquid	liquid		
Colour		colourless	amber	light amber		
Viscosity at 25 ℃ (mPa.s)	BROOKFIELD LVT	700	350	900		
Specific gravity at 25 °C (g/cm³) Specific gravity of cured product at 23 °C	ISO 1675 : 1985	1.01 -	0.96 -	- 1		
Pot life at 25 ℃ on 100 g (min)	Gel Timer TECAM			23		

### PROCESSING CONDITIONS

Both parts (polyol and isocyanate) have to be mixed at a temperature higher than 18 °C according to the mix ratio indicated on this data sheet. Isocyanate may be heated to make it more fluid the pot life will be shorter. Before casting check that parts or moulds are free of any trace of moisture.

MECHANICAL PROPERTIES at 23 °C (1)					
Hardness	ISO 868 : 2003	Shore A1 / A15	50 / 42		
Tensile strength	ISO 37 : 2004	MPa	3		
Elongation at break	ISO 37 : 2004	%	950		
Tear strength Unnotched angular specimens	ISO 34 : 2004	kN/m	15		
BASHORE resilience	ASTM 2632 : 1992	%	47		
Abrasion resistance (TABER 1000 revs / H22)	ISO 5470 : 1999	mm3 / 100U	47		

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THERMAL AND SPECIFIC PROPERTIES (1)				
Working temperature	-	-	- 40 + 80	
Glass transition temperature (tg)	ISO 11357-2 : 1999	℃	- 80	
Coefficient of thermal expansion (CTE) (0 °C to +40 °C)	ISO 11359-2 : 1999	10 <sup>-6</sup> K <sup>-1</sup>	350	
Linear shrinkage (specimen 250x50x3mm)	-	mm/m	3.2	
Maximal casting thickness	-	mm	80	
Demoulding time at 23 ℃ at 80 ℃	-	hours	12 2	
Demoulding time at 23 ℃ at 80 ℃	-	hours	96 4	

<sup>(1)</sup> Average values obtained on standardized specimens / Hardening 4h at 16h at 70 °C

#### HANDLING PRECAUTIONS

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

- Ensure good ventilation
- Wear gloves, safety glasses and waterproof clothes

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

### STORAGE CONDITIONS

Shelf life of both parts is 12 months in a dry place and in their original unopened containers at a temperature between 20 and 25  $^{\circ}$ C

Any open can must be tightly closed under dry nitrogen.

IMPORTANT: If stored at a temperature lower than 15  $^{\circ}$ C, isocyanate may crystallize. Isocyanate must be placed for 4 to 6 hours in an oven at 50  $^{\circ}$ C until complete decrystallisation.

CAREFULL: Excessive heating of the separate parts may cause a degradation of the product. (temperature > 60  $^{\circ}$ C or heating time > 12 hours).

#### **PACKAGING**

ISOCYANATE	POLYOL
6 x 1 kg	6 x 0.4 kg
1 x 20 kg	1 x 8 kg

## **GUARANTEE**

The information contained in this technical data sheet result from research and tests conducted in our Laboratories 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 guarantee the conformity of their products with their specifications but cannot guarantee 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 responsibility of AXSON is strictly limited to reimbursement or replacement of products which do not comply with the published specifications.

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