

DESCRIPTION

Casting resin for production of semi flexible moulds, forming tools or parts requiring good abrasion resistance and tear resistance properties

PROPERTIES

- Good tear resistance
- High abrasion resistance
- Good hydrolysis resistance

PHYSICAL PROPERTIES				
Composition		ISOCYANATE	POLYOL	MIXED
Mix ratio by weight		100	35	
Mix ratio by volume at 25°C		100	36	
Aspect		liquid	liquid	liquid
Colour		colourless	black	black
Viscosity at 25°C (mPa.s)	BROOKFIELD LVT	19,000	150	3,000
Specific gravity at 25°C (g/cm ³)	ISO 1675 : 1985	1.08	1.03	-
Specific gravity of cured product at 23°C	ISO 2781 : 1996	-	-	1.08
Pot life at 25°C on 135 g (min)	Gel Timer TECAM			18

MECHANICAL PROPERTIES at 23°C (1)			
Hardness	ISO 868 : 2003	Shore A1 / A15	80/79
Tensile strength	ISO 37 : 2004	MPa	12
Elongation at break	ISO 37 : 2004	%	620
Tear strength <i>Unnotched angular specimens</i>	ISO 34 : 2004	kN/m	67
BASHORE resilience	ASTM 2632 : 1992	%	44
Abrasion resistance (TABER 1000 revs / H 22)	ISO 5470 : 1999	mm ³ / 100U	41

PROCESSING CONDITIONS

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

THERMAL AND SPECIFIC PROPERTIES (1)			
Working temperature	-	-	- 40 / + 80
Glass transition temperature (tg)	ISO 11357-2 : 1999	°C	- 60
Coefficient of thermal expansion (CTE) (+0°C to +40°C)	ISO 11359-2 : 1999	10 ⁻⁶ K ⁻¹	230
Linear shrinkage (specimen 250x50x3mm)	-	mm/m	3.6
Maximal casting thickness	-	mm	80
Demoulding time			
at 23°C	-	hours	24
at 80°C			2
Complete hardening time			
at 23°C	-	hours	96
at 80°C (curing after gel)			4

(1) Average values obtained on standardized specimens / Hardening 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°C

Any open can must be tightly closed under dry nitrogen.

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

CAREFULL: Excessive heating of the separate parts may cause a degradation of the product. (temperature > 60°C or heating time > 12 hours).

PACKAGING

ISOCYANATE	POLYOL
6 X 1 kg	6 x 0.35 kg
1 x 20 kg	1 x 7 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.