

## APPLICATIONS

*Used by casting in silicone molds for the realization 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	ISO 1675 :1975	1.15	1.02	-
Specific gravity at 23°C	ISO 2781 :1988	-	-	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 mold at room temperature or pre-heated at 95° F/(35° C) – 104° F/(40° C) to accelerate the process.*

*After demolding cure 2 hours at 158° F/(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 material safety data sheet.*

**URETHANE CASTING FOR TECHNICAL  
AND PROTOTYPES PARTS**  
FLEXURAL MODULUS 218,000 psi - T<sub>g</sub> 167° F

<b>MECHANICAL PROPERTIES AT 73° F/(23° C) AFTER POSTCURE <sup>(1)</sup></b>			
Flexural modulus of elasticity	ISO 178 :2001	Psi/(MPa)	218,000/(1,500)
Maximal flexural strength	ISO 178 :2001	Psi/(MPa)	8,000/(55)
Maximal tensile strength	ISO 527 :1993	Psi/(MPa)	5,800/(40)
Elongation at break	ISO 527 :1993	%	20
CHARPY impact strength	ISO 179/2D :1994	ft.Lb.f/in <sup>2</sup> /( kJ/m <sup>2</sup> )	12/(25)
Izod impact strength - notched	ASTM D 256-05	ft.Lb.f/in <sup>2</sup> /( kJ/m <sup>2</sup> )	2/(4)
Izod impact strength - unnotched	ASTM D 256-05	ft.Lb.f/in <sup>2</sup> /( kJ/m <sup>2</sup> )	8/(16)
Hardness	ISO 868 :1985	Shore D1	74
			65

<b>THERMAL &amp; SPECIFIC PROPERTIES</b>			
Glass temperature transition <sup>(1)</sup>	TMA METTLER	°F/(°C)	167/(75)
Linear shrinkage <sup>(1)</sup>	-	%	0.4
Maximal casting thickness	-	In./(mm)	0.2/(5)
Demolding time @ 23°C	-	Hours	4
Complete hardening time @ 23°C	-	days	4

<sup>(1)</sup> Average values obtained on standard specimens/Postcure 12 hr at 158° F/(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 60° F/(15° C) and 77° F/(25° C). Any open container must be tightly closed under dry nitrogen blanket.

## 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.