

## APPLICATIONS

To be used by vacuum casting in silicone moulds for making technical or prototype parts and mock-ups with mechanical properties similar to thermoplastics like charged ABS when requiring a fire classification.

## PROPERTIES

- Fast demoulding
- Good thermal properties
- Self-extinguishing
- Can be easily coloured with CP pigments

PHYSICAL PROPERTIES				
		PART A	PART B	MIXING
Composition		ISOCYANATE	POLYOL	
Mixing ratio by weight		100	100	
Aspect		liquid	liquid	liquid
Colour		straw yellow	off-white	off-white
Brookfield LVT viscosity at 25°C (mPa.s)	-	150 - 200	3,500	1,000 <sup>(4)</sup>
Specific gravity at 25°C	ISO 1675 : 1985	1.22	1.30	-
Specific gravity at 23°C	ISO 2781 : 1996	-	-	1.35
Pot life at 25°C on 200g (min)	-			4 - 6

(4) Viscosity after 1 minute mixing ( mixing is not miscible straight after)

## VACUUM CASTING PROCESSING CONDITIONS

- **Before use, rehomogeneize part B**
- Heat both parts (isocyanate and polyol) at 23°C in case of storage at low temperature.
- **Important : Shake vigorously part A before each weighing.**
- Weigh both parts.
- After 10 minutes degasing under vacuum, mix for **minimum 1 minute (4)**.
- Cast in a pre-heated polyaddition silicone mould ( ESSIL 291) at 70°C .
- Demould after 45 minutes minimum at 70°C (let cool down before demoulding).

## HANDLING 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.

## MECHANICAL PROPERTIES <sup>(1)</sup>

Final hardness	ISO 868 : 2003	Shore D1	87
Tensile modulus	ISO 527 : 1993	MPa	4,000
Resistance at break in tension	ISO 527 : 1993	MPa	70
Elongation at break	ISO 37 : 1994	%	3.0
Flexural modulus of elasticity	ISO 178 : 2001	MPa	3,400
Maximal flexural strength	ISO 178 : 2001	Mpa	119
Charpy impact strength	ISO 179 1EU : 1994	kJ/m <sup>2</sup>	30

## THERMAL AND SPECIFIC PROPERTIES

Glass transition temperature <sup>(1)</sup>	11359 : 2002	°C	100
Linear shrinkage on 3 mm thickness			
- after 1 hour at 70°C	-	mm/m	3
- after 12 hours at 70°C			3.1
- after 12 hours at 70°C + 12 hours at 80°C			3.35
Maximal casting thickness	-	mm	5
Demoulding time at 70°C	-	min.	40
Self-extinguishible	FAR 25 UL 94	3 mm	2.2 <sup>(2)</sup> VO <sup>(3)</sup>

(1) Average values obtained on standard specimens/Hardening 12 hr at 70°C + 12 hr at 80°C

(2) Meets the requirements of the FAR 25.853 for flammability 12 seconds on 2.2 mm

(3) Internal test – Axson France's test report : TR 04189 –REV 00

## STORAGE

Shelf life is 6 months 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.

## PACKAGING

<b>ISOCYANATE ( Part A )</b> 6 x 1 kg	<b>POLYOL ( Part B )</b> 6 x 1 kg
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## 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.