

### APPLICATIONS

Casting in silicone mould: prototype parts and mock-ups with mechanical properties similar to thermoplastics such as ABS.

### PROPERTIES

- Processing under vacuum recommended
- High reproduction accuracy
- Can be easily pigmented with colouring CP
- High impact resistance

PHYSICAL PROPERTIES				
Composition		ISOCYANATE PX 220-1	POLYOL PX 220	MIXING
Mixing ratio by weight		100	50	
Aspect		liquid	liquid	liquid
Colour		straw yellow	straw yellow	off-white
Viscosity at 25°C (mPa.s)	BROOKFIELD LVT	150	900	450
Density of parts before mixing at 25°C	ISO 1675 :1975	1.18	1.08	-
Density of the cured product at 23°C	ISO 2781 :1988	-	-	1.18
Pot life at 25°C on 150 g (min)	Gel Timer TECAM			4 - 5

### PROCESSING CONDITIONS

- Use in a vacuum casting machine.
- Heat the mould at 70°C.
- Heat both parts at 20°C in case of storage at a lower temperature.
- Weigh Isocyanate in the upper cup (do not forget to allow for residual cup waste).
- Weigh Polyol in the lower cup (mixing cup).
- After degassing for 10 minutes under vacuum pour Isocyanate in Polyol and mix for **1 minute**.
- Cast in the silicone mould, previously heated at 70°C.
- Put in an oven at 70°C minimum.
- Demould after 40 minutes 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.

## MECHANICAL PROPERTIES AT 23°C

Flexural modulus of elasticity	ISO 178: 2010	MPa	2,000
Maximal flexural strength	ISO 178: 2010	MPa	100
Tensile modulus of elasticity	ISO 527-2: 2012	MPa	2,700
Tensile strength	ISO 527-2: 2012	MPa	60
Elongation at break in tension	ISO 527-2: 2012	%	7
Charpy impact strength	ISO 179-2: 1997	kJ/m <sup>2</sup>	75
Hardness	ISO 868: 2003	Shore D1	80

## THERMAL AND SPECIFIC PROPERTIES (1)

Glass transition temperature (Tg)	ISO 11359-2: 1999	°C	90 - 100
Heat deflection temperature (HDT 1.8 MPa) - after curing 1 hour at 70°C - after curing 16 hours at 80°C	ISO 75-2: 2004	°C	72 94
Linear shrinkage	-	mm/m	5
Maximal casting thickness	-	mm	5
Time before demoulding at 70°C	-	min.	30 – 40
Coefficient of thermal expansion (CTE) [+10, +70]°C	ISO 11359: 1999	10 <sup>-6</sup> K <sup>-1</sup>	100 – 120

(1) Average values obtained on standardized specimens / Hardening 16 hours at 80°C

## STORAGE CONDITIONS

Shelf life is 6 months for Isocyanate and 9 months for Polyol in a dry place and in original unopened containers at a temperature between 15 and 25° C. Any open must be tightly closed under dry nitrogen blanket.

## PACKAGING

<b>Isocyanate</b> 6 x 1 kg	<b>Polyol</b> 6 x 0.5 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.