

## DESCRIPTION

To be used by vacuum casting in silicon moulds for making prototype parts and mock-ups with mechanical properties similar to thermoplastics like ABS type or PC. PX 527 is the best option to get tinted parts with bright aspect and deep colour.

For long term UV stability and weather resistance PX 522 HT is recommended.

## PROPERTIES

- Fast demoulding
- Good impact and flexural resistance
- Clear aspect
- Can be easily coloured with CP pigments

PHYSICAL PROPERTIES					
			PX 527	PX 527	
Composition			ISOCYANATE	POLYOL	MIXED
Mix ratio by weight			100	55	
Aspect			liquid	liquid	liquid
Colour			transparent	bluish	transparent
Viscosity at 25°C	(mPa.s)	BROOKFIELD LVT	300	700	700
Specific gravity at 25°C	(g/cm <sup>3</sup> )	ISO 1675 : 1985	1.19	1.10	-
Specific gravity of cured product	at 23°C	ISO 2781 : 1996	-	-	1.15
Pot life at 25°C on 100 g	(min)	Gel Timer TECAM			4

## PROCESSING CASTING PROCESSING BY MACHINE

- Heat both parts (Isocyanate and Polyol) at 23°C in case of storage at lower temperature.
- Weigh both 2 parts.
- Mix for **1 minute minimum** after degassing for 10 minutes under vacuum.
- Cast under vacuum in silicone mould previously heated at 70°C.
- Remove from the mould after 45 minutes minimum at 70°C

For pigmentation of 527, add pigments like CP colours only in Polyol component.

## 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.

## CLEAR VACUUM CASTING POLYURETHANE FOR TECHNICAL PARTS AND PROTOTYPES FLEXURAL MODULUS 2.600 MPa – Tg 90°C

### MECHANICAL PROPERTIES at 23°C (1)

Hardness	ISO 868 : 2003	Shore D1 / D15	80
Tensile strength	ISO 527 : 1993	MPa	73
Elongation at break	ISO 527 : 1993	%	13
Flexural modulus	ISO 178 : 2001	MPa	2,600
Flexural strength	ISO 178 : 2001	MPa	117
Impact strength (CHARPY) <i>Unnotched specimens</i>	ISO 179/1eU : 1994	kJ/m <sup>2</sup>	> 100

(1): Average values obtained on standard specimens / Hardening 2 hours at 80°C after demoulding.

### THERMAL AND SPECIFIC PROPERTIES (1)

Glass transition temperature (Tg)	ISO 11359 : 2002	°C	90
Deflection temperature (HDT)	ISO 75 : 2004	°C	80
Linear shrinkage (aluminium mould)	-	mm/m	N.C
Maximal casting thickness	-	mm	5
Demoulding time at 70°C	-	min	45

## STORAGE CONDITIONS

Shelf life is 6 months for Isocyanate and 12 months for Polyol 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 blanket.

## PACKAGING

<b>PX 527 ISOCYANATE</b>	<b>PX 527 POLYOL</b>
1 x 5.0 kg	1 x 2.75 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