



BUILDING TRUST



# PX 226 ISOCYANATE

## PX 226-245 POLYOL

### PX 226/L-245/L POLYOL

VACUUM CASTING POLYURETHANE  
FOR TECHNICAL PARTS AND PROTOTYPES  
FLEXURAL MODULUS 2,500 MPa – TG 105 °C

## DESCRIPTION

Used by vacuum casting in silicon moulds for making prototype parts and mock-ups with mechanical properties similar to thermoplastics like polystyrene and filled ABS.

## PROPERTIES

- Long pot life
- Good impact and flexural resistance
- Available in 2 reactivities
- High thermal resistance
- Can be easily coloured with CP pigments (maximum 3% in weight)

PHYSICAL PROPERTIES				
Composition		ISOCYANATE PX 226	POLYOL PX 226 – PX 245 PX 226L – PX 245L	MIXED
Mix ratio by weight		100	50	
Aspect		liquid	liquid	liquid
Colour		straw yellow	colourless	white
Viscosity at 25°C (mPa.s)	BROOKFIELD LVT	175	700	2,000 (2)
Specific gravity at 25°C (g/cm <sup>3</sup> )	ISO 1675 : 1985	1.22	1.10	-
Specific gravity of cured product at 23°C	ISO 2781 : 1996	-	-	1.20
Pot life at 25°C on 100 g (min)	Gel Timer TECAM		PX 226-245 PX 226L- 245/ L	4 7,5

(2): Mixing is not instantly miscible

## VACUUM CASTING PROCESSING BY MACHINE

- Use in vacuum casting machine
- Heat the mould at 70°C (only polyaddition silicone mould)
- Heat isocyanate and polyol at 23°C in case of storage at lower temperature
- Weigh Isocyanate in upper bowl (do not forget additional waste)
- Weigh Polyol in lower bowl (mixing bowl)
- After degassing for 10 minutes under vacuum, pour Isocyanate into Polyol and mix :
- 1 minute for PX 226-245 Polyol
- 2 minutes for long pot life PX 226L - 245/L Polyol
- Cast under vacuum in silicone mould previously heated at 70°C
- Cure at 70°C for 25 to 60 minutes according Polyol reactivity

## 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.



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MECHANICAL PROPERTIES AT 23°C (1)			
Flexural modulus	ISO 178 : 2001	MPa	2,500
Flexural strength	ISO 178 : 2001	MPa	105
Elongation at break	ISO 527 : 1993	%	15
Tensile strength	ISO 527 : 1993	MPa	70
Impact strength (CHARPY) <i>Unnotched specimens</i>	ISO 179/1eU : 1994	kJ/m <sup>2</sup>	70
Hardness	ISO 868 : 2003	Shore D1	82

THERMAL AND SPECIFIC PROPERTIES			
Glass transition temperature (tg) (1)	ISO 11359 : 2002	°C	105
Deflection temperature (HDT) (1)	ISO 75 : 2004	°C	92
Linear shrinkage (1)	-	mm/m	3
Maximal casting thickness	-	mm	5
Demoulding time at 70°C	<b>PX 226-245 Polyol</b> <b>PX 226L -PX 245/L Polyol</b>	min	25 60

(1) : Average values obtained on standard specimens / Hardening 12 hr at 80°C + 5 hr at 100°C

## 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 226 Isocyanate</b>	<b>PX 226-245 Polyol - PX 226L-245/L Polyol</b>
6 x 1,00 kg 1 x 5 kg	6 x 0,50 kg 1 x 2,50 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.