

DESCRIPTION

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

PROPERTIES

- Fast demolding
- Good impact and flexural resistance
- Clear aspect
- Can be easily colored with CP pigments

PHYSICAL PROPERTIES				
		PX 527 PART A	PX 226 – PX 226L PART B	
Composition		ISOCYANATE	POLYOL	MIXED
Mix ratio by weight		100	55	
Aspect		liquid	liquid	liquid
Color		transparent	bluish	transparent
Viscosity at 77° F/(25° C) (mPa.s)	BROOKFIELD LVT	300	700	700
Specific gravity at 77° F/(25° C) (g/cm ³)	ISO 1675 : 1985	1.19	1.10	-
Specific gravity of cured product at 73° F/(23° C)	ISO 2781 : 1996	-	-	1.15
Pot life at 25°C on 100 g (min)	PX 226 Part B			4
Gel Timer TECAM	PX 226L Part B			7.5

PROCESSING CASTING PROCESSING BY MACHINE

- Heat both parts (isocyanate⁽¹⁾ and polyol) at 73° F/(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 mold previously heated at 158° F/(70° C).
- Demold after 45 minutes minimum at 158° F/(70° C)

⁽¹⁾If PX 527 Part A Isocyanate is cloudy, please heat to 158°F/(70° C) until clear. Allow to cool to room temperature before proceeding.

HANDLING PRECAUTIONS

Normal health and safety precautions should be observed when handling these products :

- Ensure good ventilation
- Wear gloves, safety glasses and impervious clothes.

For further information, please consult the product safety data sheet.



PX 527 Part A PX 226 Part B – PX 226L Part B

Preliminary Technical Data Sheet

**CLEAR VACUUM CASTING POLYURETHANE
FOR TECHNICAL PARTS AND PROTOTYPES**
FLEXURAL MODULUS 363,000 psi/(2,500 MPa) – Tg 194° F/(90° C)

MECHANICAL PROPERTIES at 23°C ⁽¹⁾			
Hardness	ISO 868 : 2003	Shore D1	82
Tensile strength	ISO 527 : 1993	psi/(MPa)	10,600/(73)
Elongation at break	ISO 527 : 1993	%	8
Flexural modulus	ISO 178 : 2001	psi/(MPa)	363,000/(2,500)
Flexural strength	ISO 178 : 2001	psi/(MPa)	21,000/(117)
Impact strength (CHARPY) <i>Unnotched specimens</i>	ISO 179/1eU : 1994	ft-lb/in ² /(kJ/m ²)	> 48/(> 100)

THERMAL AND SPECIFIC PROPERTIES ⁽¹⁾			
Glass transition temperature (Tg)	ISO 11359 : 2002	° F/(° C)	194/90
Deflection temperature (HDT)	ISO 75 : 2004	° F/(° C)	TBD
Linear shrinkage (aluminum mold)	-	ppm	TBD
Maximal casting thickness	-	ln/(mm)	0.2/5
Demolding time at 158° F/(70° C)	-	min	45

⁽¹⁾ Average values obtained on standard specimens / postcured 2 hours at 176° F/(80° C) after demolding

STORAGE CONDITIONS

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 59 to 77° F/(15 to 25° C). Any open can must be tightly closed under dry nitrogen blanket.

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