

APPLICATIONS

Used by casting in silicone moulds for the realisation of prototype parts and mock-ups whose mechanical properties are close to those of thermoplastic such as standard ABS.

PROPERTIES

- Low viscosity
- Choice of Fast or Long pot-life
- Good mechanical properties
- Easy to color
- Thermoplastic aspect

PHYSICAL PROPERTIES					
Composition		PX 118 ISOCYANATE	PX 118-F POLYOL ⁽¹⁾	PX 118-L POLYOL ⁽¹⁾	MIXING
Mixing ratio by weight		100	100	100	
Aspect		liquid	liquid	liquid	liquid
Colour		colorless	Light amber	Light amber	Off-white
Viscosity at 25°C (mPa.s)	BROOKFIELD LVT	50	320	320	170
Specific gravity at 25°C	ISO 1675 :1975	1.15	1.03	1.03	-
Specific gravity at 23°C	ISO 2781 :1988	-	-	-	1.06
Pot life at 25°C on 200g (min.)	-		5	12	

(1) Polyol maybe turn into cloudy if stored below 20°C. Heating it at 25°C will return to clear.

PROCESSING

**Heat both parts at 25°C to in case of storage at low temperature.
Rehomogenize POLYOL before each weighing.**

Casting by vacuum casting machine

- Weigh both part according to the mixing ratio;
- Put ISOCYANATE in the upper cup (do not forget the residual cup waste);
- Put POLYOL in the low cup (mixing cup);
- Degas separately the two parts under vacuum;
- Pour ISOCYANATE in POLYOL and mix for about 1 minute;
- Cast in silicone mould preheated at 70°C;
- Demould.

Manual casting

- Weigh according to the indicated ratio.
- Mix until a homogeneous mixing is obtained.
- Degas under vacuum and cast in a silicone mould pre-heated at 70°C (at least 35 - 40°C);
- Demould.

PX 118-F is only casted by vacuum casting machine. Demould time is **45 minutes at 70°C**.

PX 118-L can apply by manual or vacuum casting machine. Demould time is **120 minutes at 70°C**.

MECHANICAL PROPERTIES AT 23°C AFTER HARDENING ⁽²⁾

Hardness - at 23°C	ISO 868 :1985	Shore D1	78
Flexural modulus of elasticity	ISO 178 :2001	MPa	1800
Flexural strength	ISO 178 :2001	MPa	75
Tensile strength	ISO 527 :1993	MPa	50
Elongation at break	ISO 527 :1993	%	8
CHARPY impact strength	ISO 179/2D :1994	kJ/m ²	60

THERMAL & SPECIFIQUES PROPERTIES

			PX 118-F	PX 118-L
Glass temperature transition ⁽²⁾	TMA METTLER	°C	85	
Linear shrinkage ⁽²⁾	-	mm/m	2	
Maximal casting thickness	-	mm	10	
Demoulding time at 23°C	-	min	-	210
at 70°C	-	min	45	120
Complete hardening time at 23°C	-	day	4	

(2) Average values obtained on standard specimens/Hardening 16 hr at 70°C

STORAGE

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 opened package must be tightly closed under dry nitrogen blanket.

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.

PACKAGING

PX 118-F
5×(1+1) kg

PX 118-L
5×(1+1) kg

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