

APPLICATIONS

Thermoplastic-like parts (prototypes and mock-ups) with a flexural modulus of elasticity close to 2,500 MPa (ex: polycarbonate, ABS).

PROPERTIES

- Low viscosity for easy casting
- Good impact and flexural resistance
- Very easy coloring with all kind of pigments (non water based) like AXSON CP range

PHYSICAL PROPERTIES				
Composition		ISOCYANATE PX 212 / 225	POLYOL PX 225 OP	MIXING
Mixing ratio by weight		100	80	
Aspect		liquid	liquid	liquid
Color		straw yellow	opalescent	opalescent
Viscosity at 25°C (mPa.s)	Brookfield LVT	150	1160	600
Density of parts before mixing	ISO 1675-75	1.22	1.06	-
Density of cured mixing	ISO 2781-88	-	-	1.20
Pot life at 25°C on 180 g (min.)	Gel Timer TECAM			4 - 5

PROCESSING BY VACUUM CASTING IN SILICONE MOULDS

- Isocyanate and Polyol must be processed at a temperature above +18 °C.
- Degas each part before use (10 min).
- Mix for 45 seconds minimum.
- Cast in a pre-heated polyaddition silicone mould at 70 °C.
- Cure for 45 minutes minimum at 70 °C before demoulding.
- For pigmentation of PX 225 OP, add pigments like CP Colours in polyol component up to 1 phr.

MECHANICAL PROPERTIES AT 23°C (1)			
Flexural modulus of elasticity	ISO 178-93	MPa	2,500
Flexural strength	ISO 178-93	MPa	110
Tensile strength	ISO 527-93	MPa	70
Elongation at break in tension	ISO 527-93	%	9
Charpy impact strength	ISO 179/1D-94	kJ/m ²	50
Hardness	ISO 868-85	Shore D/1	85

THERMAL AND SPECIFIC PROPERTIES ⁽¹⁾

Property	Method	Unit	Value
Glass transition temperature	TMA METTLER	°C	100
Linear shrinkage	-	mm/m	3
Maximal casting thickness	-	mm	5
Demolding time at 70°C	-	min	45

(1) Average values obtained on standardized specimens/Hardening 12 hours at 80 °C.

HANDLING 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.

STORAGE CONDITIONS

Shelf life of both parts is 6 months for the 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 can must be tightly closed under dry nitrogen blanket.

Isocyanate, at low temperature (< 15 °C) may crystallize (evidence: non homogeneous liquid part, presence of solid parts). It is advised to heat the product at 70 °C until a homogeneous liquid product is obtained.

PACKAGING

ISOCYANATE PX 212/225	POLYOL PX 225 OP
6 kg 6 x 1.2 kg	4.8 kg 6 x 0.96 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.