



PX 223 HT

**CASTING URETHANE RESIN UNDER VACUUM
FOR TECHNICAL AND PROTOTYPES PARTS
FLEXURAL MODULUS OF ELASTICITY 2,300 MPA - TG 120°C**

APPLICATIONS

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

PROPERTIES

Low viscosity
Good impact and flexural resistance
Temperature resistance above 120°C

PHYSICAL PROPERTIES				
		PART A	PART B	MIXING
Composition		ISOCYANATE	POLYOL	
Mixing ratio by weight		100	80	
Aspect		liquid	liquid	liquid
Color		colorless	black	black
Brookfield LVT viscosity at 25°C (mPa.s)	-	800 - 1,400	250 - 350	750 - 950
Specific gravity at 25°C	ISO 1675-75	1.15 - 1.19	1.10 - 1.14	-
Specific gravity at 23°C	ISO 2781-88	-	-	1.12 - 1.16
Pot life @ 25°C on 90 g (min.)	-			6 - 7

PROCESSING (Vacuum casting machine)

- The both parts have to be processed at a temperature above +18°C.
- **Important : Rehomogenize part B before each weighing.**
- Degas each part before use parts.
- Mix 45 seconds approx.
- Cast in a pre-heated mould at 40°C minimum.
- Allow to cure 45 to 75 minutes at 70°C before demoulding.
- Carry out the following thermal treatment : 1 hr at 100°C and 2 hr at 110°C or more if possible.

NOTA: After demoulding it is not necessary to use a conformer to maintain the part in the oven during the post-curing. Nevertheless it is advisable to ensure that the geometry or the mass of the part does not present any deformation risk.

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.

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MECHANICAL PROPERTIES AT 23°C AFTER HARDENING ⁽¹⁾

Flexural modulus of elasticity	ISO 178-93	MPa	2.300	
Maximal flexural strength	ISO 178-93	MPa	80	
Maximal tensile strength	ISO 527-96	MPa	60	
Elongation at break	ISO 527-96	%	11	
CHARPY impact strength	ISO 179/1D-94	kJ/m ²	> 60	
Hardness	ISO 868-85	Shore D/1	- at 23°C	80
			- at 120°C	> 65

THERMAL & SPECIFICS PROPERTIES ⁽¹⁾

Glas temperature transition ⁽¹⁾	T.M.A.-Mettler	°C	> 120
Coefficient of linear thermal expansion (C _L TE) [+15, +120]°C	T.M.A.-Mettler	10 ⁻⁶ K ⁻¹	115
Linear shrinkage ⁽¹⁾		mm/m	4
Maximal casting thickness		mm	5 - 10

⁽¹⁾ Average values obtained on standardized specimens/Hardening 1 hr @ 70°C + 1 hr @ 100°C + 12 hr @ 110°C

STORAGE

Shelf life is 6 months 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

PART A

6 x 1.00 kg
1 x 5.00 kg

PART B

6 x 0.80 kg
1 x 4.00 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.

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