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**VACUUM CASTING POLYURETHANE RESIN
FOR TECHNICAL PARTS AND PROTOTYPES**
FLEXURAL MODULUS 1,200 MPa - Tg 90°C

APPLICATIONS

Thermoplastic-like parts (prototypes and mock-ups) with a flexural modulus of elasticity close to 1,200 MPa (example : polypropylene, HDPE).

PROPERTIES

- Low viscosity for easy casting
- Excellent impact resistance
- Fast demoulding

PHYSICAL PROPERTIES				
		PART A	PART B	MIXING
Composition		ISOCYANATE	POLYOL	
Mixing ratio by weight at 25°C		100	100	
Aspect		liquid	liquid	liquid
Colour		light yellow	transparent	translucent
Viscosity at 25°C (mPa.s)	BROOKFIELD LVT	150	1,000	800
Density of parts before mixing	ISO 1675 :1975	1.22	1.03	-
Density of cured mixing	ISO 2781 :1988	-	-	1.15
Pot life at 25°C on 100g (min.)	-			4 - 6

PROCESSING

- Vacuum casting into silicone molds.
- Both parts have to be processed at a temperature above +18°C.
- **Important : Shake vigorously part B before each weighing.**
- Degas each part before use.
- Mix for 30 seconds minimum.
- Cast in a mold pre-heated at 65 - 70°C.
- Cure for 60 to 75 minutes at 70°C before demolding.

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.



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MECHANICAL PROPERTIES AT 23°C (1)

Flexural modulus of elasticity	ISO 178 :2001	MPa	1,200
Flexural strength	ISO 178 :2001	MPa	80
Tensile strength	ISO 527 :1993	MPa	40
Elongation at break in tension	ISO 527 :1993	%	25
Charpy impact resistance	ISO 179/2D :1994	kJ/m ²	> 50
Hardness		Shore D1	
- at 23°C	ISO 868 :1985		76
- at 80°C			68

THERMAL AND SPECIFIC PROPERTIES (1)

Glass transition temperature	T.M.A.-Mettler	°C	90
Heat deflection temperature	ISO 75Ae :1993	°C	78
Linear shrinkage	-	mm/m	3
Maximal casting thickness	-	mm	5
Demolding time at 70°C	-	min	60 - 75
Complete hardening time at 70°C	-	hours	4

(1) : Average values obtained on standardized specimens / Hardening 4 hours at 70°C.

STORAGE CONDITIONS

Shelf life of both parts is 6 months in a dry place and in their original unopened containers at a temperature between 20 and 30°C. Any open can must be tightly closed under dry nitrogen blanket.

Part A (Isocyanat), 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 (Part A)
6 x 1.20 kg

POLYOL (Part B)
2x (6 x 0.60 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.