PX 521 HT

VACUUM CASTING POLYURETHANE FOR TRANSPARENT PROTOTYPES

FLEXURAL MODULUS 2,100 MPa – HDT 100°C

APPLICATIONS

Casting in silicone moulds : transparent prototype parts until a 50 mm thickness : headlights, glazier…

PROPERTIES

- *High transparency (water clear)*
- *Easy polishing*
- *High reproduction accuracy*
- *Good UV resistance*
- *Easy processing*

PHYSICAL PROPERTIES				
		PART A	**PART B**	**MIXING**
Composition		**ISOCYANATE**	**POLYOL**	
Mixing ratio by weight		100	55	
Aspect		liquid	liquid	liquid
Colour		bluish	transparent	transparent
Brookfield LVT viscosity at 25°C (mPa.s)	-	150 – 250	900 – 1.300	400 – 600
Density of parts before mixing Density of the cured product	ISO 1675-85 ISO 2781-88	1.06 – 1.08 -	1.03 – 1.07 -	- 1.04 – 1.08
Pot life at 25°C on 155 g	-			16 - 24

PROCESSING CONDITIONS

- *Use in a vacuum casting machine.*
- *Heat the mould at 70°C.*
- *Heat both parts at 20°C in case of storage at a lower temperature.*
- *Weigh part A in the upper cup (do not forget to allow for residual cup waste).*
- *Weigh part B in the lower cup (mixing cup).*
- *After degasing for 10 minutes under vacuum pour part A in part B and mix for **2 minutes**.*
- *Cast in the silicone mould, previously heated at 70°C.*
- *Put in an oven at 70°C minimum.*
- *Demould after 2 hours.*

HANDLING PRECAUTIONS

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

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

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

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MECHANICAL PROPERTIES AT 23°C			
Hardness	ISO 868-85	Shore D1	87
Flexural modulus of elasticity	ISO 178-93	MPa	2,100
Flexural strength	ISO 178-93	MPa	105
Tensile modulus of elasticity	ISO 527-96	MPa	2,700
Tensile strength	ISO 527-96	MPa	75
Elongation at break in tension	ISO 527-96	%	9
Charpy impact strength	ISO 179/2D-94	kJ/m^2	27

THERMAL AND SPECIFIC PROPERTIES (1)			
Glass transition temperature (Tg)	TMA METTLER	°C	110
Maximal casting thickness		mm	50
Time before demoulding at 70°C		min.	120
Heat deflection temperature (HDT)	ISO 75 Ae-93	°C	100

(1) Average values obtained on standardized specimens/Hardening 4 hrs at 80°C + 16 hrs at 100°C

STORAGE CONDITIONS

Shelf life of both parts is 12 months in a dry place and in their original unopened containers at a temperature between 15 and 25°C.

Any open can must be tightly closed under dry nitrogen.

PACKAGING

Isocyanate (Part A)
6 x 1 kg

Polyol (Part B)
6 x 0.55 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.

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