

APPLICATIONS

Casting in silicone mould : prototype parts and mock-ups with mechanical properties similar to thermoplastics such as ABS.

PROPERTIES

- Processing under vacuum recommended
- High reproduction accuracy
- Can be easily pigmented with colouring CP
- High impact resistance

PHYSICAL PROPERTIES				
		PART A	PART B	MIXING
Composition		ISOCYANATE	POLYOL	
Mixing ratio by weight		100	50	
Aspect		liquid	liquid	liquid
Colour		straw yellow	straw yellow	off-white
Brookfield LVT viscosity at 25°C (mPa.s)	-	100 – 200	800 – 1,000	500 – 700
Density of parts before mixing	ISO 1675-85	1.15 – 1.20	1.06 – 1.10	-
Density of the cured product	ISO 2781-88	-	-	1.16 – 1.20
Pot life at 25°C on 150 g (min)	-			4 - 5

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 **1 minute**.
- Cast in the silicone mould, previously heated at 70°C.
- Put in an oven at 70°C minimum.
- Demould after 40 minutes at 70°C.

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.

MECHANICAL PROPERTIES AT 23°C

Hardness	ISO 868-85	Shore D1	80
Flexural modulus of elasticity	ISO 178-93	MPa	2,000
Flexural strength	ISO 178-93	MPa	92
Tensile modulus of elasticity	ISO 527-96	MPa	2,200
Tensile strength	ISO 527-96	MPa	60
Elongation at break in tension	ISO 527-96	%	10
Charpy impact strength	ISO 179/2D-94	kJ/m ²	80 – 100

THERMAL AND SPECIFIC PROPERTIES (1)

Glass transition temperature (Tg)	TMA METTLER	°C	90
Heat deflection temperature (HDT 1.8 MPa) - after curing 1 hour at 70°C - after curing 16 hours at 80°C	ISO 75Ae-93	°C	75 82
Linear shrinkage	-	mm/m	5
Maximal casting thickness	-	mm	5
Time before demoulding at 70°C	-	min.	30 – 40
Coefficient of thermal expansion (CTE) [+10, +70]°C	TMA METTLER	10 ⁻⁶ K ⁻¹	100 – 120

(1) Average values obtained on standardized specimens / Hardening 12 hours at 80°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 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 0.5 kg

GUARANTEE

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