

APPLICATIONS

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

PROPERTIES

- Low viscosity
- Long pot-life
- Good mechanical properties
- Can be painted
- Thermoplastic aspect

PHYSICAL PROPERTIES				
		PART A	PART B	MIXING
Composition		ISOCYANATE	POLYOL	
Mixing ratio by weight		100	100	
Aspect		liquid	liquid	liquid
Color		light to dark amber	Clear colorless	Off-white
Viscosity at 77°F (25°C) (mPa.s)	BROOKFIELD LVT	60	175	100
Specific gravity at 77°F (25°C)	ISO 1675 :1975	1.15	1.02	-
Specific gravity at 73° (23°C)	ISO 2781 :1988	-	-	1.06
Gel time at 77°F (25°C) on 200g (min.)	-			15 - 20

PROCESSING

Mix polyol prior to weighing if it has been standing for more than a day.

Weigh according to the indicated ratio. Mix until a homogeneous and transparent mixing is obtained.

Degas for 5 minutes.

Cast in a silicone mold at room temperature or pre-heated at 95°F (35°C) – 104°F (40°C) to accelerate the process.

Demolding time and temp before post cure: Recommended 2 hours at 158°F (70°C) for parts with thickness less than an 1/8"

* Demolding time dependent upon part geometry as well as temperature of liquid components and mold temperature.

After demolding cure 2 hours at 158°F (70°C) in order to obtain the optimal properties.

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 safety data sheet.

MECHANICAL PROPERTIES AT 73°F (23°C) AFTER POSTCURE ⁽¹⁾

Cured color	Visual		Bright white
Tensile strength	ASTM D638	Psi/(MPa)	6,000/(41)
Tensile modulus		Psi/(MPa)	100,000/(690)
Elongation		%	8
Flexural strength	ASTM D790	Psi/(MPa)	7,000/(48)
Flexural modulus		Psi/(MPa)	200,000/(1,380)
Compressive strength	ASTM D695	Psi/(MPa)	7,000/(48)
Compressive modulus		Psi/(MPa)	175,000/(1,210)
Impact resistance, notched	ASTM D-256-05	ft.Lb.f/in ² /(kJ/m ²)	2.9/(6)
Hardness - at 73°F (23°C)	ASTM D-2240	Shore D1	74

THERMAL & SPECIFIC PROPERTIES

Glass temperature transition ⁽¹⁾	TMA METTLER	°F (°C)	167 (75)
Coefficient of thermal expansion		10 ⁻⁶ °F ⁻¹ /(10 ⁻⁶ °C ⁻¹)	56/(100)
Linear shrinkage ⁽¹⁾	-	%	0.1
Maximal casting thickness	-	In./(mm)	0.2/(5)
Demolding time @ 73°F (23°C)	-	Hours	4
Complete hardening time @ 73°F (23°C)	-	days	4

⁽¹⁾ Average values obtained on standard specimens/Postcure 12 hr at 158°F (70°C)

STORAGE

Shelf life is 6 months for PART A (Isocyanate) and 12 months for PART B (Polyol) in a dry place and in original unopened containers at a temperature between 60°F (15°C) and 77°F (25°C). Any open container must be tightly closed under dry nitrogen blanket.

GUARANTEE

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