

RubCast 390

Standard Rubber Prototype Vacuum Casting Resin

DESCRIPTION :

RubCast 390 is a three-component polyurethane resin. It could be used by vacuum casting in silicone moulds for the realization of prototype parts and mock-ups whose mechanical properties are close to Rubber.

CHARACTERISTIC:

- 3-component vacuum casting polyurethane elastomer
- Adjust the dosage of Component C to meet different hardness requirements
- Low chemical corrosion to silicone molds

PHYSICAL PROPERTY:

Performance	Test Method	RubCast 390A Polyol	RubCast 390B Isocyanate	RubCast 390C	UNFILLED MIXING
Mixing ratio by weight	-	100	100	0-700	-
Aspect	Visual	Liquid	Liquid	Liquid	Liquid
Color	Visual	Light amber Black	Colorless	Milky White	Black
Brookfield LVT viscosity 25°C (mPa.s)	Brookfield	~420	~30	~500	-
Density (g/cm³)	-	~1.05	~1.2	~1.05	~1.10
Pot Life (200g) (minutes)	-	-	-	-	5-6

MECHANICAL PROPERTY

Performance	Condition	Test Method	Unit	Value
Hardness	at 23°C	ISO 868:1985	Shore Hardness	88A
Tensile Strength	-	ISO 527:1993	MPa	7
Elongation at Break	-	ISO 527:1993	%	200%
Tear Strength	Condition	ISO 34:2004	kN/m	70

Average values obtained on standardized specimens / Hardening 70°C/1hours .Post-curing treatment: 24 hours at 70°C + 24 hours at 25°C .

Hardness at Different Mix Ratios			
Hardness (Shore A)	RubCast 390A (Polyol)	RubCast 390B (Isocyanate)	RubCast 390C
72A	100	100	100
60A	100	100	200
49A	100	100	300
40A	100	100	400
28A	100	100	500

OTHER PROPERTIES

Performance	Condition	Unit	Value
Maximum Casting Thickness	-	mm	20
Demolding Time at 70°C (2mm thickness)	-	minutes	90-120
Full Curing at 23°C	-	days	4

PROCESSING:

- Casting by vacuum casting machine.
- Polyol will crystallize when stored below 15°C. It shall be preheated at 40-70°C and shaken thoroughly to form a homogeneous liquid before use. The temperature shall be cooled down to 25-35°C prior to pouring.
- Heat both parts at 25°C to in case of storage at low temperature.
- Shake POLYOL until both color and aspect become homogeneous before each weighing.
- Weight both part according to the mixing ratio;
- Put ISOCYANATE in the upper cup (do not forget the residual cup waste);
- Put POLYOL in the low cup (mixing cup); • Degas separately the two parts under vacuum;
- Pour ISOCYANATE in POLYOL and mix for about 1 minute; • Cast in silicon.

PACKAGE :

RubCast 390A (Polyol)	RubCast 390B (Isocyanate)	RubCast 390C
1KG/4 KG	1 KG/4 KG	4 KG

STORAGE CONDITIONS :

Shelf life is 12months for Isocyanate and 12 months for Polyol in a dry place and in original unopened containers at a temperature between 15 and 25°C. Any opened package must be tightly closed under dry nitrogen blanket.

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.

WARRANTY INFORMATION-PLEASE READ CAREFULLY

The information contained herein is offered in good faith and is believed to be accurate. However, because conditions and methods of use of our products are beyond our control, this information should not be used in substitution for customer's tests to ensure that our products are safe, effective and fully satisfactory for the intended end use.