

PR 752

References:

Polyol : PR 752 - P ST152000
Isocyanate : PR 7 series – I ST000401

Description:

Polyurethane vacuum casting resin offering a good chemical resistance, and a low aggressiveness on polyaddition silicone molds.

Mercury free material, in accordance with the European Directives: 2011/65/UE (RoHS), 2002/96/EC, 2000/53/EC, 2000/11/EC.

Average physical properties of the components:

	PR752-P ST152000	PR7 SERIES-I ST000401	PR752
Aspect – Color	Amber liquid	Colorless liquid	Amber solid
Brookfield LVT Viscosity (mPa.s) According to MO-051	600	1200	ca. 1000
Density at 25°C According to MO-032	1.15	1.16	1.16

Note : According to the batch of the material, and overtime, the shades of the material can be lighter or darker. This doesn't have any impact on the final properties of the material.

Processing properties:

Mixing ratio by weight	60	100	
Mixing time at 25°C (sec.)			60
Pot life of 160g at 25°C (min.) According to MO-062			6 - 8
Demolding time at 70°C on 3 mm (min.) According to MO-116			50

Average mechanical and thermal properties of the polymer:

Average properties after curing: 1 H 70°C + 2 H 130°C + 24 H à TA

	Test method	
Shore D1 hardness	ISO 868-2003	87
Heat deflection temperature (HdT) (°C)	ISO 75-2 : 2013	150
Flexural modulus (MPa)	ISO178 : 2001	2200
Maximal flexural stress (MPa)	ISO178 : 2001	96
Tensile modulus of elasticity (MPa)	ISO 527 : 1993	2000
Tensile stress at break (MPa)	ISO 527 : 1993	75
Elongation at break (%)	ISO 527 : 1993	5
Charpy impact test (unnotched test bar) (kJ.m ⁻²)	ISO 179-1/1fU ^c : 2010	11,4
Linear shrinkage (10 mm thickness) (mm/m)		8

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It's the responsibility of the user to check the convenience of the product in his own conditions defined and tried by himself. The Synthene Company disclaims all responsibility for any consequence occurred by the use of this product.



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Hygiene and security for using:

We advise to wear safety clothes and accessories (gloves, glasses). Work in a ventilated room. For more information, please read the materials security datasheet.

Process with vacuum casting machine:

Pre-heat the polyaddition silicone molds at 70 °C.

Shake vigorously the polyol component before use.

Weigh the isocyanate part in the upper cup, without forgetting to take into account the casting residues on the walls and bottom of the upper cup.

Weigh the polyol part in the lower cup (mixing cup).

After a 10-minut degassing time, pour the isocyanate part in the polyol part and mix for 50 to 60 seconds (if the temperature of the components is about 25 °C)

Pour in the silicone mold, then place the mold in an oven at 70 °C.

Depending on the thicknesses, demolding is possible after 50 minutes, then do the appropriate post-curing to reach the full properties of the material. For large parts, it might be helpful to use a shape holder to avoid deformations.

Packaging:

- Box of 2 X (3.0 + 5.0) kg

For other packaging, please consult us.

Storage:

18 months in original and unopened packaging, stored between 15 and 25 °C.

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