

SILISIL RTV RP-Tough 45 OIL B Addition-Crosslinking

Description:

SILISIL RTV RP-Tough 45 OIL B is a room-temperature vulcanizing, transparent, two-component, addition-based silicone (RTV-2). A key feature of this material is its oil-bleeding property, which facilitates demolding and extends mold life. Further advantages include:

- Vulcanization at room temperature (23 °C)
- Very high tear and abrasion resistance
- High chemical resistance to aggressive resin components
- Excellent detail reproduction
- High dimensional accuracy and shape stability
- Excellent temperature and aging resistance

Main areas of application:

- Transparent molds for precise reproductions
- Rapid prototyping with high strength and laser processability
- Concrete molds with aggressive formulations
- Applications where high mechanical strength and good demolding are required

Surface preparation:

Surfaces must be clean, grease-free, and dry to ensure optimal results. Contaminants such as sulfur, amine compounds, or tin residues can inhibit vulcanization.

Mixture and application:

1. **Preparation:** Stir component A well before mixing.
2. **Mixing:** Add component B to component A in a ratio of 1:10 by weight.
3. **Homogenize:** Mix both components carefully until a uniform mass is formed.
4. **Venting:** For optimal results, it is recommended to vent the silicone under vacuum to avoid air inclusions.
5. **Processing:** Slowly pour the mixed silicone into the mold from a height of about 30 cm.
6. **Layered pouring:** If there is not enough material available, pouring can be continued after complete curing, within 24 hours of the first curing (at max. 23 °C).
7. **Curing:** Pot life : 75 minutes at 23 °C, Demolding time : approx. 13 hours at 23 °C

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Technical data:

Color	Component A: Transparent Component B: Translucent
Viscosity Component A	70,000 mPa·s (Brookfield)
Viscosity Component B	3,000 mPa·s (Brookfield)
Viscosity of the mixture	50,000 mPa·s (Brookfield)
Mixing ratio	10:1 by weight
Density of the mixture	1.12 g/cm ³ (at 23 °C)
Pot life (at 23 °C)	approximately 75 minutes
Demolding time (at 23 °C)	approximately 13 hours
Hardness (Shore A)	approx. 41 (according to ASTM D 2240)
Tear resistance	> 21 N/mm (according to ASTM D 412)
Elongation at break	approx. 350% (according to ASTM D 412)
Tensile strength	6.0 N/mm ² (according to ASTM D 624)
Temperature resistance	-40 °C to 300 °C

Packaging:

SILISIL RTV RP-Tough 45 OIL B is available as standard in 1 kg + 100 g, 5 kg + 500 g, and 25 kg + 2.5 kg containers. Other container sizes are available upon request.

Safety instructions:

Before handling the product, read the safety data sheet and ensure that you have all the information required for safe use.

Important note:

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