

ELASTOSIL[®] M 4503

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Room Temperature Curing Silicone Rubber (RTV-2)

Pourable, condensation-curing, two-component silicone rubber that vulcanizes at room temperature.

Main application: Making cost effective molds, particularly for casting PE resins.



Properties

- Good flow
- Low Shore A hardness (approx. 25)
- Great extensibility and elasticity
- High resistance to casting resins, particularly polyesters

Specific features

- Condensation-curing
- Two-component

Technical data

Properties Uncured

Property	Condition	Value	Method
Color	-	white	-
Density	23 °C	1.16	ISO 2811
Viscosity, dynamic after stirring	23.0 °C	40000 mPa·s	ISO 3219

These figures are only intended as a guide and should not be used in preparing specifications.

Catalyzed

Property	Condition	Value	Method
Pot Life up 100000 mPas with 5% T35	23 °C	75 min	-
Demoldable at 23°C after	-	20 h	-

These figures are only intended as a guide and should not be used in preparing specifications.

Properties Cured

Property	Condition	Value	Method
Color	-	white	-
Density	23 °C	1.2 g/cm ³	ISO 2781
Hardness Shore A	-	25	DIN ISO 48-4
Tensile strength	-	-	ISO 37
Elongation at break	-	350 %	ISO 37
Linear shrinkage at 23°C	-	0.5 %	-
Tear strength	-	> 20 N/mm	ASTM D 624 B

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All the information provided is in accordance with the present state of our knowledge. Nonetheless, we disclaim any warranty or liability whatsoever and reserve the right, at any time, to effect technical alterations. The information provided, as well as the product's fitness for an intended application, should be checked by the buyer in preliminary trials. Contractual terms and conditions always take precedence. This disclaimer of warranty and liability also applies particularly in foreign countries with respect to third parties' rights.

Applications

- Reproduction Molding

Application details

Due to its good mechanical properties of the cured material as well as its high resistance to polyester resins, ELASTOSIL® M 4503 is particularly suitable as a mold-making material for reproducing models with very pronounced undercuts in polyester resins.

Other materials, such as plaster or wax, may also be cast without any problems from molds made of ELASTOSIL® M 4503.

Processing

Processing

ELASTOSIL® M 4503 is cured by adding 5 wt % Catalyst T35. Pot life curing time may be accelerated, and thus adjusted to suit the individual application by blending with Catalyst T47.

The pot life is the period of time at 23 °C / 50% rel. humidity during which the catalyzed mix to attain a viscosity of 100000 mPa s and still be just pourable.

For faster curing Catalyst T 35 may be blended with Catalyst T 47. E.g. at a ratio of 95 : 5 (T35 : T47) the pot life decreases to about 30 min, and the mold needs only about 4 h to cure.

Further instructions on blending any catalyst with Catalyst T 47 may be found in our data-sheet: "WACKER® T-series catalysts".

Comprehensive instructions are given in our leaflet "ELASTOSIL® - PROCESSING RTV-2 SILICONE RUBBERS".

Detailed information on other mold-making compounds in the ELASTOSIL® M range is contained in our brochure "ELASTOSIL® M. Silicone Rubber for Mold Making".

Packaging and storage

Storage

The 'Best use before end' date of each batch is shown on the product label. Storage beyond the date specified on the label does not necessarily mean that the product is no longer usable. In this case however, the properties required for the intended use must be checked for quality assurance reasons.

Safety notes

Being a condensation-curing silicone rubber, ELASTOSIL® M 4503 contains only constituents that over many years have proved to be neither toxic nor aggressive. Special handling precautions are therefore not required, i.e., only the general industrial hygiene regulations apply. Catalysts T 35 and T 47 contain a tetraorganotin compound, are flammable (flash points 50 °C and 34 °C respectively) and may cause irritation in contact with eyes and skin. Adequate protective measures are required.

Comprehensive instructions are given in the corresponding Material Safety Data Sheets. They are available on request from WACKER subsidiaries or may be printed via WACKER web site <http://www.wacker.com>. 1 space line

QR Code ELASTOSIL® M 4503



For technical, quality or product safety questions, please contact:

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