

ELASTOSIL® M 4500

RTV-2 SILICONE RUBBER / MOLD MAKING

Product description

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

Special features

- very low Shore A hardness (approx. 14)
- good flowability and self-deaeration
- high tear strength
- extremely great extensibility and elasticity
- excellent long-term stability of the mechanical properties of the vulcanizate
- high resistance to polyester resins

Application

Due to its good mechanical properties of the cured material as well as its high resistance to polyester resins, ELASTOSIL® M 4500 is particularly suitable as a mold-making material for reproducing models with very pronounced undercuts in polyester resins.

The very low modulus of ELASTOSIL® M 4500 proves to be particularly advantageous for all molding applications where only low demolding forces may be applied because the models or castings have low mechanical strength.

Other materials, such as plaster or wax, may also be cast without any problems from molds made of ELASTOSIL® M 4500.

Due to the very low hardness of the cured rubber and its excellent link transfer performance, ELASTOSIL® M 4500 is an ideal base material for producing printing pads.

Processing

ELASTOSIL® M 4500 is cured by adding Catalyst T 12.

Comprehensive instructions are given in our leaflet "WACKER RTV-2 Silicone Rubber - Processing."

Detailed information on other mold-making compounds

in the ELASTOSIL® M range is contained in our brochure "ELASTOSIL® M. Mold-Making Compounds For Maximum Precision".

The pot life is the period of time at 23 °C / 50% rel. humidity during which the catalyzed mix to attain a viscosity of 60,000 mPa s and still be just pourable.

Catalyst	Pot life, approx. [min]	Curing time (tack-free), approx. [h]
3 % T 12	70	6-7
4 % T 12	30	4-5

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.

Additional information

Please visit our website www.wacker.com.

Safety notes

Being a condensation-curing silicone rubber, ELASTOSIL® M 4500 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.

Catalyst T 12 contains a tetraorganotin compound, is flammable (flash point > 50 °C) and may cause irritation in contact with the eyes and skin. Appropriate 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>.

Product data

Typical general characteristics	Inspection Method	Value
Product data (uncured)		
Color		white
Density at 20 °C, at 1013 hPa	DIN 53217	approx. 1,2 g/cm ³
Viscosity, dynamic at 23 °C	BROOKFIELD	30000 mPa.s
Product data (catalyzed with 3 wt % Catalyst T 12)		
Viscosity at 23 °C	ISO 3219	25000 mPa.s
Product data (cured)		
Density at 23 °C in water	ISO 2781	1,20 g/cm ³
Hardness Shore A	ISO 868	14
Tensile strength	ISO 37	3,00 N/mm ²
Elongation at break	ISO 37	450 %
Tear strength	ASTM D 624 B	> 15 N/mm
Linear shrinkage		0,6 %

With 3 wt % Catalyst T 12, after 4 days at 23 °C / 50 % rel. humidity.

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

The data presented in this leaflet are in accordance with the present state of our knowledge, but do not absolve the user from carefully checking all supplies immediately on receipt. We reserve the right to alter product constants within the scope of technical progress or new developments. The recommendations made in this leaflet should be checked by preliminary trials because of conditions during processing over which we have no control, especially where other companies' raw materials are also being used. The recommendations do not absolve the user from the obligation of investigating the possibility of infringement of third parties' rights and, if necessary, clarifying the position. Recommendations for use do not constitute a warranty, either express or implied, of the fitness or suitability of the products for a particular purpose.

The management system has been certified according to DIN EN ISO 9001 and DIN EN ISO 14001

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

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