

# ELASTOSIL<sup>®</sup> M 4512

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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, especially suited for casting PE and PU resins.



## Properties

- very good flowability and self-deaeration
- low Shore A hardness (approx. 20)
- excellent tear strength
- very high elongation and flexibility
- outstanding chemical resistance to attack by polyester and polyurethane resins, mold life is significantly extended

## Specific features

- Condensation-curing
- Two-component

## Technical data

### Properties Uncured

| Property                          | Condition        | Value                         | Method          |
|-----------------------------------|------------------|-------------------------------|-----------------|
| Color                             | -                | white                         | -               |
| Viscosity, dynamic after stirring | 23 °C            | 30000 mPa·s                   | DIN EN ISO 3219 |
| Density                           | 23 °C   1013 hPa | approx. 1.2 g/cm <sup>3</sup> | -               |

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

### Catalyzed

(catalyzed with 5 wt % Catalyst T 51, after 4 days at 23 °C / 50 % rel. humidity)

| Property           | Condition | Value       | Method   |
|--------------------|-----------|-------------|----------|
| Viscosity, dynamic | 23 °C     | 25000 mPa·s | ISO 3219 |

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### Properties Cured

| Property            | Condition | Value                  | Method       |
|---------------------|-----------|------------------------|--------------|
| Density in water    | 23 °C     | 1.19 g/cm <sup>3</sup> | ISO 2781     |
| Hardness Shore A    | -         | 20                     | ISO 868      |
| Tensile strength    | -         | 3.5 N/mm <sup>2</sup>  | ISO 37       |
| Elongation at break | -         | 500 %                  | ISO 37       |
| Linear shrinkage    | -         | < 0.4 %                | -            |
| Tear strength       | -         | > 24 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 for Foundry, Arts and Handicrafts

## Application details

ELASTOSIL® M 4512 is a high-performance moldmaking compound, which is particularly suitable for the reproduction of models with extensive undercuts.

ELASTOSIL® M 4512 is especially suitable for the processing of polyester and polyurethane resins.

## Processing

If molds for processing epoxy or polyurethane resins are to be made, ELASTOSIL® M 4512 is cured by adding 5 wt % Catalyst T 21.

For molds used to process other reproduction materials such as polyester resins, plaster, concrete, synthetic stone, wax or low-melting alloys, 5 wt % Catalyst T 51 should be used.

| Catalyst | Pot life, [min] | Curing time (tack-free), [h] |
|----------|-----------------|------------------------------|
| 5 % T 21 | 60-90           | 8-10                         |
| 5 % T 51 | 60-90           | 8-10                         |

Pot lives and curing times of both catalysts may be accelerated, and thus adjusted to suit the individual application by blending with Catalyst T 47. For faster curing either catalyst may be blended with Catalyst T 47. E.g. at a ratio of 95 : 5 (T51 : 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"**.

The pot life is the period of time at 23 °C / 50 % rel. humidity during which the catalyzed mix to attain a viscosity of 100,000 mPa s and still be just pourable

**Please check also our brochures and info sheets.**

## 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 4512 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 21, T 51 and T 47 contain organotin compounds, are flammable (flash points 50 °C) 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>.

## QR Code ELASTOSIL® M 4512



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

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