

# ELASTOSIL® M 4644 A/B

RTV-2 Silicone Rubber / Mold Making

## Characteristics

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

## Special characteristics

- Medium Shore A hardness (approx. 40)
- Fast and non-shrink cure at room temperature which can be accelerated considerably by the application of heat
- Good flow
- Good transparency of the cured rubber
- High tear strength
- Outstanding resistance to casting resins, particularly polyurethanes and epoxies, for very long service life of the molds

## Application

High-performance silicone mold-making compound which is particularly suitable for reproducing models with undercuts in polyurethane or epoxy resins

Main field of application:  
Vacuum casting for rapid prototyping

## Product data (uncured)

Property	Test method	Unit	Value	
Component			A	B
Color			Transparent	Colorless
Density at 23 °C		[g/cm <sup>3</sup> ]	1.08	0.97
Viscosity at 23 °C, after stirring	ISO 3219	[mPa s]	70,000	800

## Product data (catalyzed A + B)

Property	Test method	Unit	Value	
Mixing ratio		A : B	10 : 1	
Color			Transparent	
Viscosity at 23 °C	ISO 3219	[mPa s]	50,000	
Platinum-catalyst in component			A	

## Product data (cured)

Property	Test method	Unit	Value	
Density at 23 °C in water	ISO 2781	[g/cm <sup>3</sup> ]	1.07	
Hardness Shore A	ISO 867		40	
Tensile strength	ISO 37	[N/mm <sup>2</sup> ]	5.5	
Elongation at break	ISO 37	[%]	400	
Tear strength	ASTM D 624 B	[N/mm]	> 25	
Linear shrinkage		[%]	0.1	
After 24 h at 23 °C.				

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

**Processing**

**Important**

**The platinum catalyst is contained in component A.**

**Caution**

Only components A and B that have the **same lot number** may be processed together!

To ensure optimum flow of the material, the components must be stirred thoroughly before they are removed or processed in their containers.

The tables below indicate the pot lives and curing times at various temperatures.

The pot life figures indicate the time required for the mix to reach a viscosity of 150,000 mPa s.

The curing times apply to a layer thickness of 1 cm.

**Pot lives**

Processing temperature		
-15 °C	[d]	> 2
5 °C	[h]	6
15 °C	[h]	3
23 °C	[min]	90
30 °C	[min]	40

**Curing times**

Curing temperature		
23 °C	[h]	15
35 °C	[h]	4
60 °C	[h]	2
70 °C	[min]	30
100 °C	[min]	15
150 °C	[min]	5

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".

**Storage**

ELASTOSIL® M 4644 A/B should be stored between 5 °C and 30 °C in the tightly closed original container. The 'Best use before end' date of each batch appears 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 information**

Components A and B of the addition-curing grade ELASTOSIL® M 4644 contain 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.

Detailed safety information is contained in each Material Safety Data Sheet, which can be obtained from our sales offices.

**Additional information**

Please visit our website [www.wacker.com](http://www.wacker.com)

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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