

ELASTOSIL® M 4643 A/B

RTV-2 Silicone Rubber / Mold Making

Characteristics

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

Special characteristics

- Very good flow
- Fast and non-shrink cure at room temperature which can be accelerated considerably by the application of heat
- Medium Shore A hardness (approx. 48)
- High tear strength
- Long-term stability of the vulcanizate's mechanical properties
- Excellent resistance to the common casting resins

Application

Due to its outstanding resistance to casting resins as well as its superior mechanical properties ELASTOSIL® M 4643 A/B is perfectly suitable for all molds of models with undercuts that are to be reproduced in casting resins, and a certain inherent rigidity of the molds is required.

As a medium-Shore addition-curing RTV-2 silicone rubber that cures without undergoing dimensional shrinkage, ELASTOSIL® M 4643 A/B is also extremely suitable for casting all other common reproduction materials, particularly if absolutely accurate copies of models with undercuts are required.

Product data (uncured)

Property	Test method	Unit	Value	
Component			A	B
Color			White	Dark gray
Density at 23 °C		[g/cm ³]	1.41	1.00
Viscosity at 23 °C, after stirring	ISO 3219	[mPa s]	40,000	800

Product data (catalyzed A + B)

Property	Test method	Unit	Value	
Mixing ratio		A : B	9 : 1	
Viscosity at 23 °C	ISO 3219	[mPa s]	25,000	
Pot-life at 23 °C (up to 60,000 mPas)		[min]	90	
Curing time, tack-free		[h]	12	

Product data (cured)

Property	Test method	Unit	Value	
Color			Gray	
Density at 23 °C in water	ISO 2781	[g/cm ³]	1.35	
Hardness Shore A	ISO 868		48	
Tensile strength	ISO 37	[N/mm ²]	5.0	
Elongation at break	ISO 37	[%]	300	
Tear strength	ASTM D 624 B	[N/mm]	> 10	
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 B.

Caution

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

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 4643 A/B should be stored between 5 °C and 30 °C in the tightly originally sealed 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 4643 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

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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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