

ELASTOSIL® M4644 A/B

WACKER RTV-2 SILICONE RUBBER

PRODUCT DESCRIPTION

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

- Good Flow
- Medium Shore A Hardness (approx 40)
- Fast non-shrink cure which can be accelerated considerably by the application of heat
- Good transparency of the cured rubber
- High tear strength
- Outstanding resistance to casting resins, particularly polyurethanes and epoxies.

APPLICATIONS

ELASTOSIL® M4644 is a high performance silicone mould-making compound which is particularly suitable for reproducing models with undercuts in polyurethane or epoxy resins. The main field of application is hand casting, vacuum casting and low pressure casting for rapid prototyping.

Product Data / Uncured

Components			A	B
Colour			Transparent	Colourless
Density @ 23°C		[g/cm ³]	1.08	0.97
Viscosity @ 23°C, after stirring	Brookfield	[mPa s]	70 000	800

Product Data / Catalysed

Mixing Ratio	A : B	[parts by weight]	10 : 1
Colour			Transparent
Viscosity @ 23°C	Brookfield	[mPa s]	50 000

Product Data / Cured – After 24 hours @ 23°C

Density at 23°C, in water	ISO 2781	[g/cm ³]	1.07
Hardness, Shore A	ISO 868		40
Tensile Strength	ISO 37	[N/mm ²]	5.5
Elongation at Break	ISO 37	[%]	400
Tear Strength	ASTM D 624, B	[N/mm ²]	> 25
Linear Shrinkage		[%]	0.1
Coefficient of Linear Expansion	0-150°C	[m/m K]	2.5 x 10 ⁽⁻⁴⁾

ELASTOSIL® M4644 has a shelf life of at least 12 months in the sealed container between 5°C and 30°C. If the material is kept beyond 12 months it is not necessarily unusable, but a test should be performed on the product to check suitability to the application.

Further information on processing silicone can be found in the Wacker leaflet "Processing RTV-2 Silicone Rubbers". Check with your Barnes Representative for a copy of this leaflet.

Issue: 3

Date: 3rd August 2007

The data presented in this bulletin are in accordance with the present state of our knowledge, and does 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. Recommendations for use do not constitute a warranty, either expressed or implied, of the fitness or suitability of the product for a particular purpose.

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Processing

Important – The platinum catalyst is contained in Component A.

Caution – Only Components A and B with the same batch number may be processed together.

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

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

Curing times apply to a layer thickness of 1 cm.

<i>Temp °C</i>	<i>Pot Lives</i>	<i>Curing Times</i>
-15°C	>2 days	
5°C	6 hr	
15°C	3 hr	
23°C	90 min	15 hr
30°C	40 min	
35°C		4 hr
60°C		2 hr
70°C		30 min
100°C		15 min
150°C		5 min

Available Pack Sizes (M4644 A/B): 550gm, 1.1kg, 5.5kg, 22kg, 220kg

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