

ELASTOSIL[®] M 4160 A/B US



Room Temperature Curing Silicone Rubber (RTV-2)

ELASTOSIL[®] M 4160 A/B US Silicone Rubber is a pourable 1:1, addition-curing, two-component silicone rubber that vulcanizes at room temperature.

Properties

- Good flow
- Non-shrink cure at room temperature which can be accelerated considerably by the application of heat
- Hard (Shore A approx. 58)
- Good Tear Resistance
- Excellent resistance to common resins
- Excellent long-term stability of mechanical properties

Technical data

Properties Uncured

Property	Condition	A	B	Method
Color	-	Off-White	Grey	-
Viscosity, dynamic	23 °C	35000 cP	40000 cP	Brookfield
Specific gravity	23 °C	1.42 g/cm ³	1.44 g/cm ³	-

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

Properties Catalyzed A+B

Property	Condition	Value	Method
Viscosity, dynamic mixed	23 °C	38000 cP	Brookfield
Platinum catalyst in component	-	A	-
Mix ratio	-	1:1 pbw	-

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

Properties Cured

After 24 hours at 23 °C

Property	Condition	Value	Method
Color	-	Grey	-
Hardness Shore A	-	58	ASTM D 2240
Tensile strength	-	4.20 N/mm ²	ASTM D 412
Elongation at break	-	300 %	ASTM D 412
Linear shrinkage	-	< 0.1 %	-
Tear strength	-	> 14 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.

Application details

Due to the outstanding resistance to casting resins as well as the superior mechanical properties, ELASTOSIL® M 4160 A/B US is especially suitable for all molds of models with extensive undercuts that are to be reproduced in casting resins, especially where a need is to retain a rigid mold.

In addition to the high hardness, which facilitates demolding, ELASTOSIL® M 4160 A/B US has the advantages of a knotty tear, and relatively high specific gravity, making it an advanced molding compound suitable to many applications.

As a hard addition-curing RTV-2 silicone rubber that cures without undergoing dimensional shrinkage, ELASTOSIL® M 4160 A/B US is also extremely suitable for casting all other common reproduction materials, particularly if absolutely accurate copies of models with pronounced undercuts are required.

Processing

Important

The platinum catalyst is contained in component A.

Caution

Only components A and B with 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 to the right 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 60 000 mPa s.

The curing times apply to a layer thickness of 0.40".

Pot lives

Processing temperature		
-15 °C	[d]	> 2
5 °C	[h]	4
15 °C	[h]	2
23 °C	[min]	60
30 °C	[min]	20

Curing times

Curing temperature		
23 °C	[h]	12
35 °C	[h]	3
70 °C	[min]	1
100 °C	[min]	30
150 °C	[min]	10

Comprehensive instructions are given in our "ELASTOSIL® MOLDMAKING FACTBOOK."

Packaging and storage

Storage

The "Best use before end date" of each batch is shown on the Certificate of Analysis. Storage beyond the date specified on the Certificate of Analysis 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

For specific information regarding safe handling of this material, please refer to the Safety Data Sheet.

QR Code ELASTOSIL® M 4160 A/B US



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

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