

ALCHEMIX[®] RTV 136

Condensation Cure Silicone Rubber
 24 – 27 Shore A Hardness

ALCHEMIX RTV 136 is a two-component condensation cure, low viscosity silicone rubber. Suitable for mould making, producing replicas of polyester, epoxy resins, urethane foam and wax etc. It can precisely reproduce the shape of the original model. ALCHEMIX RTV 136 has exceptionally high tear strength and good elongation.

Special Features

- Good styrene and PU resistance
- High tear strength and excellent elongation
- Low viscosity, excellent flow properties
- Variable pot life with the choice of catalyst
- Easy to use, no special equipment or conditions required

Mix Ratio (RTV : CAT)

	RTV 136	C15	C15S	C16	C17	C17S
By Weight	100	2.5	5	5	5	10

Product Data

Property	Units	RTV 136	C15	C15S	C16	C17	C17S
Material	-	Silicone rubber	Catalyst	Catalyst	Catalyst	Catalyst	Catalyst
Appearance	-	White liquid	Clear liquid	Clear liquid	Clear liquid	Clear liquid	Clear liquid
Density (25°C)	g/cm ³	1.10 – 1.15	1.10 – 1.15	1.10 – 1.15	1.10 – 1.15	1.10 – 1.15	1.10 – 1.15
Viscosity (25°C)	mPa.s	50000 – 60000	5 – 15	5 – 15	5 – 15	5 – 15	5 – 15
Mix Viscosity (25°C)	mPa.s	-	42000	31000	42000	42000	31000
Pot Life (200g, 25°C, 50% RH*)	Minutes	-	15 – 25	15 – 25	40 – 60	80 – 100	80 – 100
Demould Time (200g, 25°C, 50% RH*)	Hours	-	6 – 12	12 – 18	18 – 24	18 – 24	24 – 30

* %RH = Relative Humidity



Technical Data Sheet



Cured Properties

Cured for 7 days at room temperature.

Property	Standard	Units	C15	C15S	C16	C17	C17S
Hardness*	BS 2782: Part 3: Method 365B	Shore A	27	24	25	26	24
Linear Shrinkage	500x50x10 mm	%	0.6 – 0.8	0.6 – 0.8	0.6 – 0.8	0.6 – 0.8	0.6 – 0.8
Tensile Strength	BS 2782: Part 3: Method 320A	MPa	3.60	3.00	3.30	3.40	3.00
Elongation at Break	BS 2782: Part 3: Method 320A	%	385	375	400	530	550
Tear Strength	BS 903: Part A3	kN/m	25.7	21.4	24.3	20.2	18.4
Service Temperature	Alchemie STM 24	°C	-60 to 250	-60 to 250	-60 to 250	-60 to 250	-60 to 250

* The hardness of RTV 136 may increase over prolonged periods of time.

Mould Preparation

Ensure the master mould is clean, dust and dirt free. If the master is made of glass or ceramic, it is possible that the silicone rubber may stick to it, so a release agent is advisable. We recommend Release Agent R5.

Mixing and Pouring Instructions

Use clean containers, which have a capacity for the rubber to expand to at least five times its volume during degassing e.g. if 1 kg is being mixed, use a 5 litre container. Add the Catalyst to the RTV at the correct ratio. Accurate weighing is essential. Mix the Catalyst into the RTV immediately. The product should be mixed thoroughly, paying particular attention to the sides and bottom of the mix vessel. Care should be taken to avoid entrapping too much air during mixing. ALCHEMIX RTV 136 will self degas, but to achieve best results the product should be de-aired under vacuum. When vacuuming, the material will expand to approximately five times its original volume and collapse, it is at this point the material has been successfully vacuumed. Pour the vacuumed silicone rubber uniformly all over the surface of the master. Any bubbles must be broken with positive air pressure or by passing a spatula gently across the surface. For intricate moulds degas again ensuring there is sufficient room in the mould box for expansion of the rubber. When degassing use 40 mbar vacuum, degassing is completed about 1 minute after the frothing ceases. Mould life and tear strength are improved with degassing.



Curing

Atmospheric temperature and humidity differ from season to season. In winter months the pot life and curing time will be nearly twice their summer values. To carry out curing more rapidly, raise the room temperature to 20 – 30°C. Demould will also depend on the catalyst used, see the Product Data section.

Storage

ALCHEMIX RTV 136, CATALYST C15, C15S, C16, C17 & C17S should be stored in original, unopened containers between 15 and 25°C. Always tightly reseal containers after use. Air, moisture or other contamination causes a reduction in reactivity over time.

If stored under the above conditions, ALCHEMIX RTV 136 will have a shelf life of 6 months, from the date of production.

Packaging

ALCHEMIX RTV 136 is supplied in 1kg, 5kg or 25kg packs.
CATALYST C15, C16 and C17 are supplied in 50g, 250g or 625g packs.
CATALYST C15S and C17S are supplied in 100g, 500g or 2.5kg packs.

Further Information

This data is not to be used for specifications. Values listed are for typical properties and should not be considered minimum or maximum.

Our technical advice, whether verbal, or in writing is given in good faith, but without warranty – this also applies where proprietary rights of third parties are involved. It does not release you from the obligation to test the products supplied by us as to their suitability for the intended process and use.

Before using any of our products, users should familiarise themselves with the relevant Technical and MSDS provided by Alchemie Ltd.



Alchemie Limited

Alchemie Ltd develop, formulate and distribute Epoxy Resins, Polyurethane Resins, Silicones, Model Boards and Sheet Wax for use in the following applications:

- Electrical encapsulation
- Rapid Prototyping
- Prototypes
- Casting
- Gel Coating
- Laminating
- Model Making
- Master Models
- Flexible and rigid mould making

We offer fast service, technical support, development expertise, innovative products, diverse knowledge and experience.

We are a well-established company, with a high level of investment and experience. We implement BS EN ISO 9001.

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