



# Technical Data Sheet



## Cure Time

Property	Units	2% C137	3% C137	4% C137	5% C137
<b>Pot Life</b> (200g, 25°C, 50%RH)	minutes	85 – 105 mins	60 – 80 mins	35 – 55 mins	15 – 35 mins
<b>Cure Time</b> (200g, 25°C, 50%RH)	hours	6 – 8	4 – 6	2 – 4	1.5 – 3

\* %RH = Relative Humidity

## Cured Properties

Cured for 7 days at room temperature.

Property	Standard	Units	Result
<b>Hardness</b>	BS 2782: Part 3: Method 365B	Shore A	28 – 32
<b>Linear Shrinkage</b>	500 x 50 x 10 mm	%	< 0.3
<b>Tensile Strength</b>	BS 2782: Part 3: Method 320A	MPa	4.2 – 4.6
<b>Elongation at Break</b>	BS 2782: Part 3: Method 320A	%	380 – 420
<b>Tear Strength</b>	BS 903: Part A3	kN/m	26 – 30

## 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 1kg 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 137 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

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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 level used, see the “Cure Time” section.

## **Storage**

ALCHEMIX RTV 137 and CATALYST C137 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 137 will have a shelf life of 6 months, from the date of production.

## **Packaging**

ALCHEMIX RTV 137 is supplied in 1kg, 5kg or 25kg packs.

CATALYST C137 is supplied in 50g, 250g or 1.25kg 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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