

RTV Silicone Rubber 20/25 Shore A

Condensation Cure Silicone Rubber

RTV Silicone Rubber 20/25 Shore A 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. RTV Silicone Rubber 20/25 Shore A has exceptionally high tear strength and good elongation.

Special Features

- Fast cure
- Low viscosity
- Easy to demould
- Excellent tear strength and tensile properties
- Low shrinkage

Mix Ratio

	RTV 134 :	C134 Fast	C134 Slow
By Weight	100 :	5	
	100 :		5

Product Data

Property	Units	RTV 134	C134 Fast	C134 Slow
Material	-	Base Rubber	Catalyst	Catalyst
Appearance	-	White liquid	Yellow liquid	Green liquid
Viscosity (25°C)	mPa.s	23,000 – 29,000	15 – 25	15 – 25
Density (25°C)	gcm ⁻³	1.05 – 1.15	0.93 – 0.98	0.93 – 0.98
Mix Viscosity (25°C)	mPa.s	-	20,000 – 26,000	20,000 – 26,000
Mix Density (25°C)	gcm ⁻³	-	1.04 – 1.14	1.04 – 1.14
Pot Life (200g, 25°C, 50% RH)	minutes	-	> 8	> 45
Demould Time (25°C, 50% RH)	Hours	-	4 – 6	12 – 24

* %RH = Relative Humidity

Typical Cured Properties

Cured for 7 days at room temperature.

Property	Standard	Units	Fast Catalyst	Slow Catalyst
Hardness	BS EN ISO 868	Shore A	23 – 27	23 – 27
Linear Shrinkage	500 x 50 x 10 mm	%	< 1.0	< 1.0
Tensile Strength	BS EN ISO 37	MPa	3.8 – 4.2	3.8 – 4.2
Elongation at Break	BS EN ISO 37	%	500 – 550	500 – 550
Tear Strength	BS EN ISO 34	kN/m	15 – 20	15 – 20

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.

We advise using the batch of catalyst supplied with the RTV. 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.

RTV Silicone Rubber 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

RTV Silicone Rubber 20/25 Shore A should be cured at ambient temperature (20 – 25°C). Atmospheric temperature and humidity can significantly affect the cure time. RTV Silicone Rubber 20/25 Shore A will reach optimum properties after 7 days.

Thixotropy

Please contact Alchemie Ltd for details of suitable thixotropic additives.

Storage

RTV Silicone Rubber 20/25 Shore A and C134S & F catalyst 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, RTV Silicone Rubber 20/25 Shore A will have a shelf life of 6 months, from the date of production.

Packaging

RTV Silicone Rubber 20/25 Shore A is supplied in 1kg, 5kg or 25kg packs. C134S & F catalyst are supplied in 50g, 250g or 625g 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 CFSNET Ltd.