

Description

ALCHEMIX RTV 260 is a 2 component addition (platinum) cure silicone with high hardness. It is suitable for a variety of applications, including: repetitive casting, ceramics, vacuum casting, moulds for composites and general mould making. It can produce replicas out of polyester, epoxy resins, urethane foam, wax, etc.

Features

- Good release properties
- Ideal for deep and thick sections
- Excellent for repeated moulding
- High tear strength
- High elongation

Mix Ratio

	RTV 260	C260
By Weight	100	10

Component Data

	Conditions	RTV 260	C260
Description	-	Silicone	Catalyst
Appearance	-	Greyish white liquid	Blue liquid
Viscosity	25°C	150,000 mPa.s	950 mPa.s

Cure Data

	Conditions	Typical Value
Appearance	-	Pale blue
Mixed Viscosity	Initial, 23°C	140,000 mPa.s
	1 hour, 23°C	190,000 mPa.s
Pot Life	200g, 25°C	120 minutes
Demould Time ¹	25°C	24 hours
	60°C	2 hours
	70°C	1 hour
	80°C	30 minutes

¹ See "Curing" section below.

Cured Properties

	Standard	Typical Value ²
Density	-	1.26 gcm ⁻³
Hardness	JIS K 6253	60 A
Tensile Strength	JIS K 6251	5.5 MPa
Elongation at Break	JIS K 6251	280 %
Tear Strength	JIS K6252; B (crescent)	12 kN/m
Coefficient of Thermal Expansion (CTE)	-	260 ppm
Service Temperature	-	-60 to 250°C

² All results following a cure schedule of 2 hours at 60°C.

Mould Preparation

Ensure the master mould is clean, and free from dust or dirt. ALCHEMIX RTV 260 will not adhere to most substrates, but will adhere to silicone and may adhere to glass or ceramic. In which case, using a release agent, such as Release Agent R5, is advisable. We recommend carrying out tests to determine suitability.

RTV and Catalyst Preparation

In order to ensure that all of the raw materials are homogeneous, RTV 260 must be thoroughly mixed prior to use. We recommend using an electric paddle mixer. Both components should be heated to 20 – 25°C before use.

Processing Instructions

Use clean containers, which have a capacity for the mixed material 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 until uniform in colour, paying particular attention to the sides and bottom of the mix vessel. Care should be taken to avoid entrapping too much air during mixing. Degas by intermittent evacuation, the larger volume of the mixing vessel helps prevent overflow during this

operation. In case of automatic dispensing with static mixing head, the two components should be degassed before processing. Recommended vacuum conditions are 30 – 50 mbar over approximately 5 minutes. Cast the mixture either by gravity or pressure injection. For intricate moulds degas again ensuring there is sufficient room in the mould box for expansion of the rubber.

Curing

If curing at room temperature leave the mould for 24 hours before demoulding. If curing at elevated temperatures the mould should be allowed to stand for 10 minutes before being placed in the oven at the appropriate temperature. Shrinkage of the silicone will increase when cured at elevated temperatures

If curing at room temperature for 24 hours, the final part will have a hardness value of 50 – 55 Shore A. To achieve full hardness the full properties, place into an oven for 2 hours at 60°C then allow the part to cure at room temperature.

Inhibition

Addition curing silicone RTVs are susceptible to inhibition by various products. Generally speaking, products with high moisture content or high sulfur content are the most damaging. For further details, please contact Alchemie's Technical Department or read Alchemie's Technical Bulletin "*Inhibition of Addition Cure Silicone*".

Storage

ALCHEMIX RTV 260 and CATALYST C260 should be stored in original, unopened containers between 20 and 25°C. KEEP THE PACKING TIGHTLY SEALED WHEN NOT IN USE. If stored under the above conditions, ALCHEMIX RTV 260 and CATALYST C260 will have a shelf life of 12 months, from the date of production.

Packaging

ALCHEMIX RTV 260 is supplied in 1kg, 5kg and 20kg kits.
CATALYST C260 is supplied in 100g, 500g and 1kg kits.
Please contact Alchemie Ltd for bulk supply.

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 Data Sheet (TDS) and Safety Data Sheets (SDS) provided by Alchemie Ltd.

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