

RHODORSIL® RTV 3255 - CATALYST XY 86

Description **RHODORSIL RTV 3255** is a two-component silicone elastomer which vulcanizes at room temperature by a polycondensation reaction. It is supplied in the form of viscous liquid which, after adding **CATALYST XY 86**, becomes a rubbery material.

Applications

- To protect electronic and electrical engineering components by coating or filling (when a hard product or high heat-stability is required).
- To produce moulded gaskets or moulds.

Advantages

- COMPLETE CROSSLINKING WITHIN 24 HOURS at room temperature regardless of the moulded thickness.
- EXCELLENT HEAT RESISTANCE
- GOOD HARDNESS AND HIGH BREAKING STRENGTH.
- NO AGING and excellent resistance to humidity and oxidation.

Characteristics **1. Characteristics of the non-cured product**

<i>Properties</i>	RTV 3255	Catalyst XY 86
Aspect	Liquid viscous	Liquid viscous
Colour	Red	White
Density <i>(at 23°C, approx)</i>	1.5	1.1
Viscosity <i>(at 23°C, mPa.s, approx)</i>	30 000	70 000

RHODORSIL[®] RTV 3255 + CATALYST XY 86

Characteristics
 (cont')

2. Polymerization

RHODORSIL RTV 3255.....100 parts
 CATALYST XY 86.....4 parts

Properties	RTV 3255
Pot life (Hours, at 23°C, approx.)	3
Demolding time (Hours, at 23°C 50% H.R., approx.)	24

3. Characteristics of the cross-linked product

Properties	RTV 3255
Hardness Shore A , (On a 6 mm thick specimen, approx.)	55
Tensile strength at break (MPa, approx.)	4
Elongation at break (%, approx.)	100

Physical properties	RTV 3255
Linear shrinkage, % ,	< 0.8
Volume expansion coefficient, K-1, approx.	9.6 . 10 ⁻⁴
Thermal conductivity, W/(m.k), approx.	0.33
Brittle temperature, °C, approx.	- 70
Peak heat stability, °C, approx.	+ 250

Dielectric properties	RTV 3255
Dielectric strength, kV/mm, approx. (AFNOR NF C 26 225 and CEI 243)	18
Dielectric constant 1 kHz, approx. (AFNOR NF C 26 230 and CEI 250)	4.3
Dielectric dissipation factor at 1 kHz, approx. (AFNOR NF C 26 230 and CEI 250)	2 x 10 ⁻²
Transverse resistivity, Ω cm, approx. (AFNOR NF C 26 215 and CEI 93)	2.5 x 10 ¹³

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Processing **Remix each of the 2 components (base and catalyst) every time before using.**

1. Mixing of the two components

To 100 parts of **RHODORSIL RTV 3255** add 4 parts by weight of **CATALYST XY 86**.

The two components are thoroughly mixed either using an electrical or pneumatic mixer, on a low speed setting so as to limit the inclusion of air in the mixture as well as the temperature rise.

2. Degassing

The mixture must be degassed under vacuum to eliminate air bubbles which might otherwise remain in the finished part. This is particularly true to thick parts.

The mixture is generally degassed under a vacuum of 30 to 50 mbar for some 15 minutes, applying two successive pressure reductions in the vacuum chamber.

Using a container with a high diameter/height ratio will accelerate degassing.

3. Preparation of materials - Pouring/coating

RHODORSIL RTV 3255 will bond to metals, glass laminate materials, moulded parts in silicone-based materials or organic resins and to vulcanized silicone elastomers.

The following procedure, although simple, must be followed exactly:

1. Clean and degrease the metal surfaces and wipe them with a cloth soaked in acetone or rinse them with acetone. In the case of silicone elastomer surfaces, clean them with acetone then roughen them with glasspaper.
2. Apply appropriate primer to all surfaces, except silicone elastomers, by dipping, spraying or brushing and then allow them to air dry for at least 30 minutes at 25°C.
3. Slowly and evenly pour the **RHODORSIL RTV 3255** into the mould. For thick coating, the product must be poured at the lowest point in the cavity to be filled to avoid the formation and inclusion of air bubbles. The mould must not be completely filled to allow RTV room to expand at operating temperatures.

Packaging **RHODORSIL RTV 3255 and CATALYST XY 86** are delivered in kits containing:

- 1 kg RTV + 40 g catalyst
- 5 kg RTV + 200 g catalyst

Limits of use When stored in its original unopened packaging, at a temperature of between -5°C and +30°C, the **RHODORSIL RTV 3255 and CATALYST XY 86** may be stored for up to 12 months from the date of manufacture clearly marked on the packaging. Beyond this date, Bluestar Silicones no longer guarantees that the product meets the sales specifications.

Safety Consult the SAFETY DATA SHEETS for **RHODORSIL RTV 3255 and CATALYST XY 86**.