

# Product information

## Silicones

# RTV 840

## FEATURES

- Translucent
- PU and styrene resistant
- Tear resistance
- Negligible shrinkage

## COMPOSITION

- RTV 840 silicone rubber
- C850 Platinum catalyst



RTV-2 polyaddition silicone rubber with high tear resistance, 40 Shore A hardness. Low oil content (dry-type), translucent, excellent mechanical properties and dimensional stability at high and low temperatures, resistant to polyurethanes and styrene, negligible shrinkage. Designed for molding complicated parts with precise dimensions, repetitive casting applications, ceramic, vacuum casting molds and mold making.

## APPLICATIONS

- Rapid prototyping transparent resins casting. Ceramics and molding of high-volume products.

## TYPICAL PROPERTIES

This data does not constitute the Product Sales Specifications. The values indicated refer to typical properties and are not to be understood as extreme minimum or maximum values. They do not constitute a guarantee of product conformity and do not relieve the buyer from the need to test the suitability of the products before use or placing them in his production cycle. Please contact your local sales representative to obtain the product specifications.

Property	Unit	Value
Color (RTV840/C850)	Visual	Translucent / Colorless
Density at 23°C (RTV840/C850)	g/cm <sup>3</sup>	1.08 / 0.99
Viscosity at 23°C (RTV840/C850)	mPa.s	40000-80000 / 400-700
Mixing ratio A : B	pbw	100 : 10
Viscosity of the mixture at 23°C	mPa.s	30000-70000
Pot Life [150g at 23°C]	minutes	80 – 140
Demoulding	hours	24 at 25°C
	hours	2 at 60°C
	hours	1 at 70°C
	minutes	30 at 80°C
Linear shrinkage [500x50x10mm]	%	0.1
Hardness	Shore A	35-45
Tensile strength	MPa	>3.4
Tear strength	kN/m	>10
Elongation at break	%	>250
Young modulus	MPa	1.67
Poisson ratio		0.49
Coefficient of thermal expansion	X10 <sup>-5</sup> °C <sup>-1</sup>	30
Service temperature	°C	-60 a +250

## SETTING

Make sure the master model is clean, free of dust and dirt. If there are glass or ceramic parts, it is possible that the silicone rubber will stick to them, so it is advisable to use a release agent.

## INHIBITION

RTV-2 addition silicones are subject to inhibition by various products: In general, products with a high moisture or sulphur content are potentially the most harmful.

## List of inhibiting substances

Natural rubber  
Silicone sealant  
Compact flexible polyurethane  
Polyester resins  
Transparent PVC \*  
PVC film \*  
Foams and latex gloves \*  
CAF (all types)  
Neoprene based adhesives  
Vinyl adhesives  
Transparent glue for wood  
Cyanoacrylate adhesives \*  
Adhesive tapes \*  
Shellac  
RTV from polycondensation

\* (Particularly active)

## MIXING AND CASTING

Use clean containers, which have a capacity to hold up to 5 times the volume of the rubber used during degassing. Both components must be at a temperature between +15°C and +25°C. Add the catalyst to the rubber in the correct ratio, carefully weighing the quantities. Mix the two components until a homogeneous mixture is obtained, paying particular attention to the walls and bottom of the mixing vessel. Avoid entrapping air during mixing. Vacuum degas with intermittent evacuation. In case of automatic mechanical dosing, the two components must be degassed before the mixing head. Recommended vacuum conditions: 30 - 50mbar intermittently for 5 - 10 minutes. Pour the mixture by gravity or by pressure injection. In the presence of complex molds, degas again after casting.

## CURING

In case of hardening at room temperature wait 24 hours before demoulding. If hardening is carried out at high temperatures, the mold must be left to rest for at least 10 minutes before being placed in the oven. The shrinkage of the silicone increases with the increase of the crosslinking temperature.

## HANDLING PRECAUTIONS

The information for a correct and safe handling of the products is contained in the safety data sheet. Consult the safety data sheets before use for complete information on the risks to health and the environment and for the suitable protective devices to be adopted. Share the safety data sheets with all staff involved in the use of the products.

## USABLE LIFE - STORAGE

Store in original unopened containers at a temperature between + 15 ° C and + 25 ° C. Be sure to close containers tightly after use. This material, when stored under the specified conditions, has a shelf life of 12 months from the date of manufacture.

## PACKAGING

RTV840 is supplied in 20kg packs, C850 in 1kg packs. For other packaging please contact our sales department.

## LIMITATIONS

This product is neither tested nor represented as suitable for food contact, skin contact or medical uses.

## LIMITED WARRANTY

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