

Product Data Sheet

Silicone-Rubber ISO-RTV-E 302

Description:

ISO-RTV-E 302 is a 2-component product which cures to a high-temperature-resistant silicone-rubber of medium hardness. The product can be used to embed electronic parts exposed to high temperatures and to make moulds.

As curing is based on the addition-mechanism, no volatile by-products will become free and curing will also be successful in closed moulds and thick layers. Parts made from ISO-RTV-E 302 are durable, have a low compression set and high tear strength. The mechanical properties do almost not change between - 50 and + 250°C.

Technical Data:

resin	viscosity / 20°C	app. 50000 mPa s
	colour	white*
	density / 20°C	1.1 g/cm ³
hardener	colour	colourless/red
	density / 20°C	1.0 g/cm ³
mixture	mixing ratio resin : hardener	10 : 1 pbw
	viscosity / 20°C	app. 30000 mPa s
	colour	white/red*
	density / 20°C	1.1 g/cm ³
	potlife / 20°C	app. 2.5 hours
	geltime / 20°C / 50°C / 100°C	app. 12 hours app. 1 hour app. 10 min.

* or on request

Continuation Technical Data Silicone-Rubber ISO-RTV-E 302

Properties of cured product (typical values):

mixing ratio resin : hardener	10 : 1 pbw
hardness	40 Shore A / 6 Shore D
temperature resistance	long-time: 180°C short-time: 300°C
tensile strength	3 N/mm ²
elongation at break	500 %
breaking strength (cont.)	26 N/mm ²
compression set 24h / 175°C	20%
dielectric strength	> 20 kV/mm
dielectric strength while still liquid	7 kV/mm
dissipation factor tan δ / 25°C / 50Hz	0.005
dielectric constant ϵ / 25°C / 50Hz	3.1
thermal conductivity	0.4 W/K m
thermal volume expansion coefficient	$1.7 \times 10^{-4} \text{ K}^{-1}$
tracing resistance	KA 3c
water absorption after 30 days / 23°C	0.1 %
chemical resistance against mineral oil, 2n H ₂ SO ₄ , CaCO ₃ -solution	no visible degradation

Storage:

Store dry and well closed.

Processing:

Stir up resin component well. Then mix resin and hardener carefully in recommended ratio for 1 - 3 minutes (depending on size of mixture and potlife). The mixture has to be poured into the mould immediately after mixing. Air bubbles that have been stirred in the mixture can be removed before end of potlife by evacuating or by blowing hot air over the surface causing the bubbles to collapse.

Please see material safety data sheet for additional information.