Techsil® RTV27844

Silicone Rubber, RTV-2

Techsil Limited

Message:

Techsil RTV27844 is a clear liquid which will cure at room temperature to a high strength silicone rubber with the addition of curing agents. RTV27844 is supplied with a curing agent in matched kits which are designed for use at a convenient 10:1 ratio by weight. RTV27844 is a low viscosity, easily pourable liquid. RTV27844 silicone rubber compound has the capability of remaining flexible at low temperatures and have been used for protection of electronic components and assemblies against shock, vibration, moisture, ozone, dust, chemicals, and other environmental hazards by potting or encapsulation of the components and assemblies. The optical clarity of this silicone rubber suggests evaluation for applications such as potting solar cells for maximum light transmission and electronic assemblies where component identification is necessary or desirable.
Key Features and Benefits:
Convenient 10:1 mixing ratio for use in automatic dispensing or hand operations
Low viscosity allows easy flow in and around complex parts, providing excellent electrical insulation and shock resistance
Cure rate can be accelerated by heat
Will cure in deep sections or enclosed assemblies without exotherm and with low shrinkage
Chemical composition contains no solvents for ease of use on production lines
Reversion resistance and hydrolytic stability permit use in high humidity environments at elevated temperatures
Clarity permits visual inspection for easy identification and repair of encapsulated parts
Retention of elastomeric properties at temperatures up to 204°C (400°F)

General Information	
Features	Flexibility at low temperatures
	Low viscosity
	High strength
	Insulation
	Earthquake resistance
	Good liquidity
	Definition, high
	Compliance of Food Exposure
	Room temperature vulcanization
	Low shrinkage
	Hydrolysis stability
Uses	Encapsulant
	Electrical/Electronic Applications
Agency Ratings	FDA Food Exposure, Not Rated
Appearance	Clear/transparent
Forms	Liquid
Processing Method	Enclosure
	potting

Physical	Nominal Value	Unit
Molding Shrinkage - Flow	0.20	%

Thermal	Nominal Value	Unit

CLTE - Flow	2.7E-4	cm/cm/°C
Specific Heat	1260	J/kg/°C
Thermal Conductivity	0.19	W/m/K
Service Temperature	-60 - 240	°C
Optical	**Nominal Value**	
Refractive Index	1.406	
Uncured Properties	**Nominal Value**	**Unit**
Mix Ratio by Weight (PBW)		
Part A	10	
Part B	1.0	
Density	1.02	g/cm³
Viscosity	4.0	Pa·s
Curing Time		
125°C	0.75	hr
100°C	1.0	hr
65°C	4.0	hr
150°C	15	hr
25°C	1.4E+2 - 1.7E+2	hr
Pot Life (25°C)	240	min
Cured Properties	**Nominal Value**	**Unit**
Shore Hardness (Shore A)	44	
Tensile Strength	6.37	MPa
Tensile Elongation at Break	120	%
Electric strength (1.90 mm)	20	kV/mm
Relative Permittivity (1 kHz)	2.70	
Volume Resistivity	1.8E+15	ohms·cm
Dissipation Factor (1 kHz)	6.0E-4	

Recommended distributors for this material

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