Dow Corning® QP1-270

Silicone

Dow Corning Corporation

Message:

Liquid Silicone Rubber materials for device and component fabrication in the healthcare industry.

APPLICATIONS

Dow Corning® QP1-2XX Liquid Silicone Rubbers (LSRs) are platinum-catalyzed, heat-cured materials designed for the fabrication of medical devices and device components and for short term applications.

DESCRIPTION

Dow Corning QP1-2XX LSRs are a series of two-part platinum-catalyzed silicone elastomers specifically designed for liquid injection molding. Each elastomer is supplied in a two-part kit (Part A and Part B), equal portions (by weight) of which must be thoroughly blended together prior to use. The elastomer is thermally cured via an addition-cure (platinum-catalyzed) reaction. When blended and cured as indicated, the resulting elastomer consists of cross-linked dimethyl and methyl-vinyl siloxane copolymers and reinforcing silica.

The Dow Corning QP1-2XX LSRs are available in a range of nominal hardness from 30 to 70, Durometer-Shore A. The elastomers can be used without any post cure; although, if necessary, this may be employed to stabilize the final properties. Furthermore, the cured elastomers are heat stable up to 204°C (400°F), can be autoclaved, and exhibit high gas permeability compared with most thermoset elastomers and thermoplastics.

General Information			
Features	High Gas Permeability		
	No frost		
	Low viscosity		
	Workability, good		
	Fast molding cycle		
	Fast curing		
	Good coloring		
	High pressure heating resis	tance	
	Compliance of Food Exposi	ure	
Uses	Medical/nursing supplies		
Agency Ratings	USP Class VI		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.14	g/cm³	ASTM D792
Viscosity ¹			
Part A	257	Pa·s	
Part B	247	Pa·s	
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore A)	68		ASTM D2240
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress (100% Strain)	4.00	MPa	ASTM D412
Tensile Strength	9.60	MPa	ASTM D412
Tensile Elongation (Break)	330	%	ASTM D412
Tear Strength ²	55.0	kN/m	ASTM D624
NOTE			

1.	10/s
2.	B mould

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