

SE2010 2-Part, Thermally Conductive, Gap Filling Silicone Compound

Introduction

SE2010 is a two part, thermally conductive, thixotropic material, which cures at room temperature or can be accelerated with heat. It is specifically formulated to give low hardness and resistance to slump and features low and high temperature mechanical and chemical stability. SE2010 remains flexible and has a natural low level tack, ideal for applications where a strong mechanical or chemical bond is not required. SE2010 has a controlled volatile content and an easy 1 to 1 mix ratio by volume or weight.

Key Features

- **Controlled volatile content**
- **Flame resistant to UL94 V-0**
- **Thermally conductive 1.7 W/mK**
- **Non slumping**

Use and Cure Information

How to Use

IMPORTANT: SE2010 Part A contains the platinum catalyst, great care should be taken when using automatic dispensing equipment. Please ensure that it is not contaminated by residual hydride containing rubber in the dispensing equipment, as curing will result. If in doubt, it's advised to thoroughly purge the equipment with a suitable hydrocarbon solvent or silicone fluid.

Curing Conditions

The following table offers a guide to the rate of cure of **SE2010** at various temperatures, mixing of the components between 15 and 25°C is recommended to ensure adequate pot life for handling. The pot life can be extended to several hours by chilling the components.

Temperature, °C	Max Cure Time
25	5 hours
100	2 minutes

Inhibition of Cure

Great care must be taken when handling and mixing all addition cured silicone elastomer systems, that all the mixing tools (vessels and spatulas) are clean and constructed in materials which do not interfere with the curing mechanism. The cure of the rubber can be inhibited by the presence of compounds of nitrogen, sulphur, phosphorus and arsenic; organotin catalysts and PVC stabilizers; epoxy resin catalysts and even contact with materials containing certain of these substances e.g. moulding clays, sulphur vulcanised rubbers, condensation cure silicone rubbers, onion and garlic.

Property	Test Method	Value
Uncured Product		
Colour A Part:		Pale grey
Colour B Part:		Black
Appearance:		Paste
Viscosity A Part:	Brookfield	248000 mPa.s
Viscosity B Part:	Brookfield	390000 mPa.s
Catalysed viscosity	Brookfield	320000 mPa.s
Pot Life:		60 minutes *
SG 'A' Part		2.30
SG 'B' Part		2.30
* measured at 23+/-2°C		

Cured Elastomer

(after 7 days cure at 23+/-2°C)

Colour		Black
Hardness:	ASTM D 2240-95	50 Shore 00
Linear Shrinkage:		0.1 %
Thermal Conductivity:		1.70 W/mK
Coefficient of Thermal Expansion:		
Volumetric		558 ppm / °C
Linear		186 ppm / °C
Min. Service Temperature:		-60°C
Max. Service Temperature:	AFS 1540B	200 °C

Electrical Properties

Volume Resistivity:	ASTM D-257	9.26E+12 Ω.cm
Dissipation Factor at 1 kHz		4.50

Flammability

UL94 V-0 Rated **UL File number E334038**

Adhesion

Self Bonding **No**

All values are typical and should not be accepted as a specification.

Health and Safety - Material Safety Data Sheets available on request.

Packages – SE2010 is supplied in 2x25ml twin cartridges also available as a made to order product 2 x 100ml and 2 x 600ml cartridge kits. Please contact your Regional Sales Manager for alternative packaging options.

Storage and Shelf Life – Expected to be 6 months in original, unopened containers below 25°C

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