

## EE Q-Gel 310 General Purpose Silicone Gel

### Introduction

EE Q-Gel 310 is one of a family of soft, adherent, clear silicone elastomeric gels designed for the encapsulation and protection of electronics components.

It is a low viscosity, 2-component system that is readily mixed in a 1:1 ratio.

EE Q-Gel 310 is the softest gel in this group of products.

It is used to provide protection from vibration, thermal or mechanical shock. EE Q-Gel 310 has excellent dielectric properties and also gives excellent protection from water and many environmental contaminants

### Advantages

The following describes some of the properties offered by EE Q-Gel 310:

- Low viscosity
- Soft but resilient
- Simple 1:1 ratio mix
- Excellent pot life and curing characteristics
- Excellent adhesion to many substrates
- Flexible down to -55°C
- Suitable up to +200°C

### Use and Cure Information

EE Q-Gel 310 is supplied in several pack sizes and consists of kits containing equal quantities of Parts 'A' and 'B'.

Containers should always be kept sealed when not in use, and all mixing equipment must be clean and free from contaminants such as organo-tin, -sulphur, -nitrogen compounds which can poison the catalyst and prevent proper cure.

### Mixing

Each of the EE Q-Gel 310 component parts should be mixed in the recommended one-to-one ratio (by volume or weight).

This can be done readily either by hand or using a powered mixer, avoiding excessive aeration.

The curing process begins as soon as the components are mixed and the working or pot life of the mixed system is dependent on the ambient temperature conditions.

Note:Chilling the separate component parts, before and after mixing, will extend the pot life, but not indefinitely.

### General Characteristics

(Applies to both Parts 'A' and 'B')

#### Uncured Product

Appearance	Clear liquid
Viscosity, mPa.s	1000
Specific Gravity at 25°C	0.97
Mix Ratio	1:1
Pot Life, minutes	~45

#### Cure Properties

Temperature (°C)	Cure Time (h)
150	0.5
100	1.0
25	20

#### Cured Gel

Penetration (mm)[19.5g Cone]	3 to 7
Volatiles, %	0.1 max

#### Electrical Properties

Dielectric Strength, kV/mm	>18
Volume Resistivity, Ω.cm	2.1 x 10 <sup>15</sup>

#### Adhesion

Fully cured EE Q-Gel 310 exhibits good adhesion to most substrates such as:

Aluminium, stainless steel, ABS, polycarbonate, PCB boards, Nylon 6,6

Customers are advised to carry out their own tests on clean, degreased substrates to ensure satisfactory adhesion is achieved

#### Health and Safety

Detailed advice for the safe handling and disposal of EE Q-Gel 310 is given in the individual product Material Safety Data Sheets, available on request

#### Packages

EE Q-Gel 310 is supplied in kits containing equal quantities of Parts 'A' and 'B'

#### Storage and Shelf Life

EE Q-Gel 310 should be stored in its original unopened containers at temperatures below 30°C. Under these conditions each part will remain useful for a period of 12 months.