

SE2005 2 Part Condensation cure silicone encapsulant

Introduction

This is a 2-component, silicone elastomer system specially designed for electronic potting and encapsulation applications. It offers good protection against chemicals, environmental contamination, mechanical shock, vibration and impact damage. It can be employed in areas where low flammability is a prerequisite. The cured elastomer can be repaired. The component parts have relatively low viscosities and are readily mixed either by hand or machine

Key Features

- Low viscosity
- Deep section cure
- Excellent dielectric properties
- Protects against shock, vibration

Use and Cure Information

The product is supplied as two components 'A' and 'B'. These components should be mixed together in the ratio by weight shown opposite. Mixing can be done by hand or by automated dispensing machine using a static mixer nozzle. A nozzle of at least 9 GXF type elements is recommended for uniform mixing of both components.

The dispensing machine mix ratios should be adjusted if mixing by volume and not weight. **IMPORTANT** the mixed components will cure in the nozzle so to preserve nozzles a continuous process is required or a change of nozzle after the task is completed. Complete mixing of each component is achieved within the first 50-60% of the nozzle.

Mixing

Both the 'A' and 'B' parts should be well stirred to ensure the material is uniform and any settlement of the fillers have been remixed.

Place the required amount of 'A' and 'B' parts by weight at the mix ratio shown opposite, in a clean plastic or metal container of approximately 3 times their volume, and mix until the colour of the mixture is uniform. For best results, we recommend degassing. Degas by intermittent evacuation, the larger volume of the mixing vessel helps prevent overflow during this operation. In case of automatic dispensing with static mixing head, the two components should be degassed before processing. Recommended vacuum conditions are 30-50 mbar intermittently over 5-10 minutes. Cast the mixture either by gravity or pressure injection.

Health and Safety

Safety Data Sheets available on request.

Packaging

ACC Encapsulants are available in a variety packaging including bulk containers. Please contact our sales department for more information.

Revision Date : 02/11/2017

Download Date : 15/01/2019

Property

Uncured product

Appearance	
Colour A Part	
Colour B Part	
Cure Type	
Max Cure Hrs @ 25 °C	
Mix Ratio	
Pot Life mins	
Rheology	
Self Bonding	
Viscosity A-Part mPas	Brookfield
Viscosity B-Part mPas	Brookfield
Viscosity Mixed mPas	Brookfield

Test Method

Value

Viscous Liquid
White
Clear
Condensation
24 hrs
100:1
60 mins
Viscous Liquid
No
9000 mPas
300 mPas
9000 mPas

Cured product

After 7 days cure at 23° +/-2° C and 50+/-5% humidity

CTE Linear ppm/°C		254 ppm/°C
CTE Volumetric ppm/°C		762 ppm/°C
Colour		White
Duro Shore A	ASTM D 2240-95	40
Elongation %	ISO 37	180 %
Linear Shrinkage %		0.5 %
Max Working Temp +°C	AFS_1540B	220 °C
Min Working Temp - °C		-50 °C
SG	BS ISO 2781	1.2
Tear kN/m	BS ISO 34-1	2 kN/m
Tensile MPa	ISO 37	1.08 MPa
Thermal Conductivity W/mK		0.24 W/mK
UL 94V-0		No

Storage

Max storage temperature °C		40 °C
Shelf life		9 mths

Electrical properties

Dielectric Strength kV/mm	ASTM D-149	>18 kV/mm
Permittivity		3.4
Power Factor @1MHz		0.005
Volume Resistivity ohms cm	ASTM D-257	3E+14 ohms cm

The information and recommendations in this publication are to the best of our knowledge reliable. However nothing herein is to be construed as warranty or representation. Users should make their own test to determine the applicability of such information or the suitability of any products for their own particular purposes. Statements concerning the user of the products described herein are not to be construed as recommending the infringement of any patent and no liability for infringement arising out of any such use is to be assumed.