EGel3002

Characterisation

This is one of a family of soft, adherent, silicone elastomeric gels designed for the encapsulation and protection of electronic components. It is a low viscosity, 2-component system that is readily mixed in a 1:1 ratio. It is used to provide protection from water and many environmental contaminants. It has excellent dielectric properties.

Technical Data

	EGEL3002A A-Component	**EGel3002B** B-Component		
Appearance	Transparent	Transparent		
Viscosity	2000	2000	mPa.s	Brookfield HBTD
	Catalysed Mass			
Mixing Ratio	1 : 1			in weight shares
Cure Type	Addition			
Rheology	Liquid			
Self-bonding	Yes			
Mixed Viscosity	2000		mPa.s	Brookfield HBTD
Colour	Transparent			
Pot Life	22		Min.	
Max Cure @25°C	24		h	
Max Cure @ 100°C	30		Min.	
	Vulcanisate after 7 days at 23°C +/- 2°C and 50% +/- 5% humidity			
CTE Linear	310		ppm/°C	
CTE Volumetric	930		ppm/°C	
Working Temp.	-55 to 200		°C	
SG	0.97			
Thermal Conductivity	0.18		W/m*K	
UL 94V-0	No			
	Electrical properties			
Dielectric Strength	>18.5		kV/mm	ASTM D-149
Volume Resistivity	2.00E+15		ohms*cm	ASTM D-257
Penetration (Cone weight, g)	5.5 (19.5)		mm/10	

The above given values are product describing data. Please consult the 'delivery specification' for binding product specifications. Further data about product properties, toxicological, ecological data as well as data relevant to safety can be found in the safety data sheet.

Storability / Storage

With proper storage the product will have a shelf life of 18 months when stored at <40°C and protected from frost in a dry place, in original unopened containers.

Properties

- High tack and mechanical adhesion to many substrates
- 1:1 Mix ratio
- Soft but resilient gel
- Low viscosity

Application Technique

Application

IMPORTANT:

The 'A' part of product 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, its advised to thoroughly purge the equipment with a suitable hydrocarbon solvent or silicone fluid.

Mixing

Place the required amount of 'A' and 'B' parts by weight at the correct mix ratio into a clean plastic or metal container of approximately 3 times their volume and mix until 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 a 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.

Inhibition of Cure

Great care must be taken when handling and mixing all addition cure silicone elastomer systems, ensuring that all the mixing tools (vessels and spatulas) are clean and constructed of materials which do not interfere with the curing mechanism. The cure of the rubber can be inhibited by the presence of compounds such as nitrogen, sulphur, phosphorus and arsenic, organotin catalysts and PVC stabilisers, 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.

Curing Conditions

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

It is absolutely important to check the compatibility in preliminary tests if unknown substrates are used very important to check the compatibility in preliminary tests if unknown substances are used.

Safety

Please observe our EC safety data sheets and the safety remarks on our container labels when handling our products. The dangerous goods regulations and the accident prevention regulations of the professional associations must be particularly observed. Keep the EC safety data sheet of the applied product at hand since it provides you with useful instructions for the safe use and disposal of the product as well as actions to be taken in case of accidents.

We reserve the right to modify the product and technical leaflet.

Our department for applied technique is always at your service for further information and advice.

Our technical advice and recommendations given verbally, in writing or by trials are believed to be correct. They are neither binding with regard to possible rights of third parties nor do they exempt you from your task of examining the suitability of our products for the intended use. We cannot accept any responsibility for application and processing methods which are beyond our control.

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