

## ALPA-GEL 97166

### 2 part, addition curing silicone gel for the manufacturing of damping elements and for encapsulation applications.

#### Description

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

- Very low viscosity and therefore well pourable
- Crosslinks without shrinkage (less than 0.1%)
- Crosslinking is accelerated by heat
- Excellent mechanical damping properties

#### Use and Cure Information

##### IMPORTANT:

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

#### Mixing

Both the 'A' and 'B' parts should be well stirred to ensure the material is uniform and any settled 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 the 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.

#### Inhibition of Cure

Great care must be taken when handling and mixing all addition cured silicone elastomer systems, ensuring 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.

#### 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 important to check the compatibility in preliminary tests if unknown substrates are used.

#### Health & Safety

Safety Data Sheets available on request.

#### Packaging

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

Revision Date 06 Feb 2024

Revision No 4

Download Date 17 May 2024

#### Property

##### Uncured Product

Appearance		transparent
Color A		transparent
Color B		transparent
Density A	DIN 53 479	0.98
Density B	DIN 53 479	0.98
Max Cure Mins @ 100 °C		60 mins
Mix Ratio By Weight		1:1
Pot Life mins at 23°C/73°F		4 mins
Self Bonding		no
Viscosity A	Brookfield HBTD	1000 cP
Viscosity B	Brookfield HBTD	800 cP
Viscosity Mixed	Brookfield HBTD	900 cP

##### Cured Product

Color		Transparent
Density	DIN 53479	0.98 g/cm3
Hardness Shore 00	ASTM D 2240-95	38
Max Working Temp		180 °C / 356 °F
Min Working Temp		-50 °C / -58 °F

#### Storage

Max Storage Temperature		30 °C °C / 86 °F
Min Storage Temperature		0°C °C / 32 °F
Shelf Life		12 mths

The content set out in the technical data sheet does not contain information upon which you should rely. It is provided for general information purposes only and does not constitute a product specification. You must obtain professional or specialist advice before taking any action based on the information provided in the technical data sheet.

CHT make reasonable efforts to ensure that information set out in the technical data sheet is complete, accurate, and up-to-date. CHT do not, however, make any representations, warranties or guarantees (whether express or implied) that information set out in the technical data sheet is complete, accurate, or up-to-date or that the product will be suitable for your requirements. You should carry out your own testing to determine the applicability of such information and whether the product will be suitable. CHT reserve the right to modify the technical data sheet at any time. The CHT technical service department is available to offer further information and advice and should it be needed to look at modifying current products or custom formulate a new one to meet your specific requirements. Please contact the technical service department.

CHT Germany GmbH: Postfach 12 80, 72002 Tübingen, Bismarckstraße 102, 72072 Tübingen, Germany

Telephone: 07071/154-0, Fax: 07071/154-290, Email: info@cht.com, Homepage: www.cht.com / www.cht-silicones.com