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TECHNICAL DATA SHEET

Silmer[®] VIN 5000-B
Reactive Silicone Pre-Polymer

DESCRIPTION

Silmer[®] VIN 5000-B is a silicone pre-polymer with reactive vinyl groups. It is used in addition cured systems, reacted with **Silmer H** Silicone Hydrides to make silicone elastomers.

TYPICAL PROPERTIES (see C of A for each lot)

Appearance	Clear liquid
Colour, Gardner	1
Viscosity, cps	5,000
Active Content, %	100
Solubility, 1%/ 10% -Water -IPA -Aromatic Solvents	Insoluble/ Insoluble Soluble/ Soluble Insoluble/ Insoluble
Molecular Weight, gm/mol	47k
Equivalent Weight, gm/mol	24k
Percent vinyl, %	0.18 (see C of A)
mmoles/gm	0.04

USES AND APPLICATION

Silmer VIN 5000-B is co-reacted with various **Silmer H** Silicone Hydride cross-linking polymers using the hydrosilation reaction to make Room Temperature Vulcanizing (RTV, cures at RT) Low Temperature Vulcanizing (LTV, cures at 50-130°C) and High Temperature Vulcanizing (HTV, cures above 130°C) silicone elastomers. This cross-linking occurs when the vinyl silicone reacts with the silicone hydride using a platinum catalyst. The preferred **Silmer H** Silicone Hydrides are dimethyl methyl hydrogen siloxanes with 15-60 mole % SiH content which give elastomers with increased toughness, tensile strength and dimensional stability.

In general, the higher the cross-linking density (*i.e.* the higher the mole % SiH in the **Silmer H** polymer) and the lower the viscosity of the **Silmer VIN** polymer, the harder and more rigid the elastomers will be. The lower the cross-linking density and the higher the viscosity of the **Silmer VIN**, the softer and more flexible the elastomer will be. Therefore, **Silmer VIN 5000-B** will give moderately flexible and hard elastomers. Relative to **Silmer VIN 5000**, this variation will provide more crosslinking and associated properties.

SAFETY

Before handling, read the Material Safety Data Sheet and container label for safe use, physical and health hazard information. THIS MATERIAL IS NOT FOR MEDICAL OR DRUG USE.

STORAGE AND SHELF LIFE

When stored in the original, unopened containers between 10 and 40°C, **Silmer VIN 5000-B** has a shelf life of 36 months from date of manufacture.

PACKAGING

Silmer VIN 5000-B is available in 20kg and 200kg containers.

LEGAL DISCLAIMER

Siltech Corporation believes that the information in this technical data sheet is an accurate description of the typical uses of the product. Siltech Corporation, however, disclaims any liability for incidental or consequential damages, which may result from the use of the product that are beyond its control. Therefore, it is the user's responsibility to thoroughly test the product in their particular application to determine its performance, efficacy and safety. Nothing contained herein is to be considered as permission or a recommendation to infringe any patent or any other intellectual property right.

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