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TECHNICAL DATA SHEET

Silmer[®]EPC F418-F
Epoxide Functional Pre-Polymer

DESCRIPTION

Silmer EPC F418-F is cycloaliphatic based reactive silicone epoxy pre-polymer. It is used to modify standard epoxy resin to improve its chemical and mechanical properties.

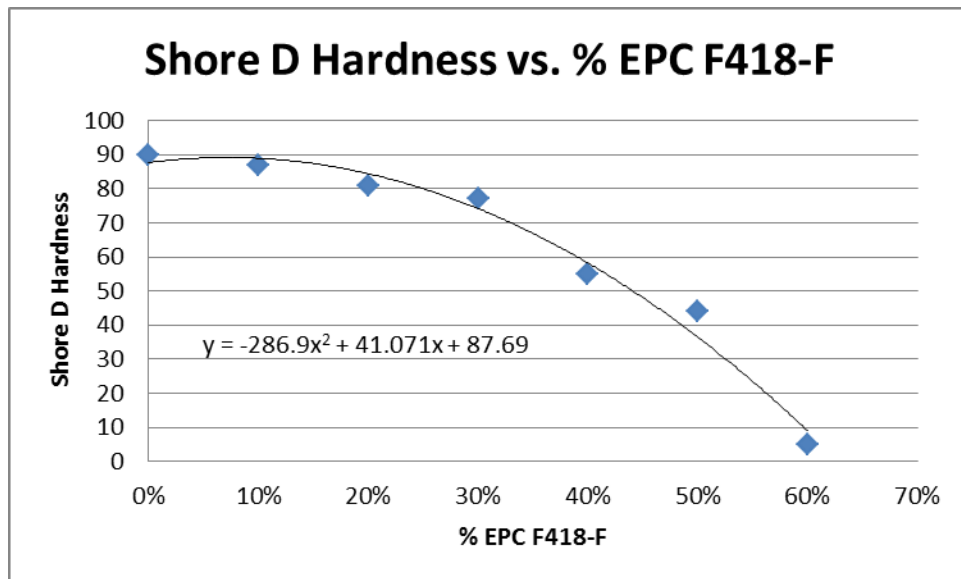
TYPICAL PROPERTIES

Appearance	Clear liquid
Colour, Gardner	4 max
Viscosity at 25°C, cps	500-1500
Active Content %	100
Water Solubility (1 % & 10%)	Soluble
Specific Gravity (25°C)	0.98
Molecular Weight	8,200
Equivalent Weight	8,200

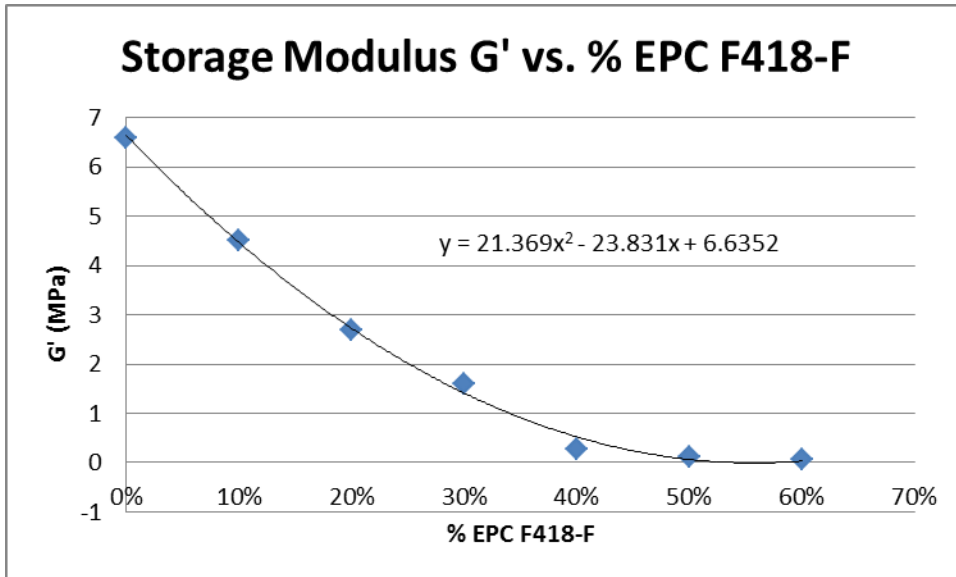
APPLICATION & USES

Silmer[®]EPC F418-F is used to modify epoxy resins by grafting the silicone moiety to the polymer structure and therefore improves its chemical and mechanical properties. The epoxy resin modified with Silmer EPC F418-F imparts key benefits such as improved heat stability, weatherability, flexibility, toughness and lowers the discoloration obtained from standard epoxy resins. Silmer EP F418-F is compatible with most epoxy resins and therefore gives a clear silicone- modified epoxy resin.

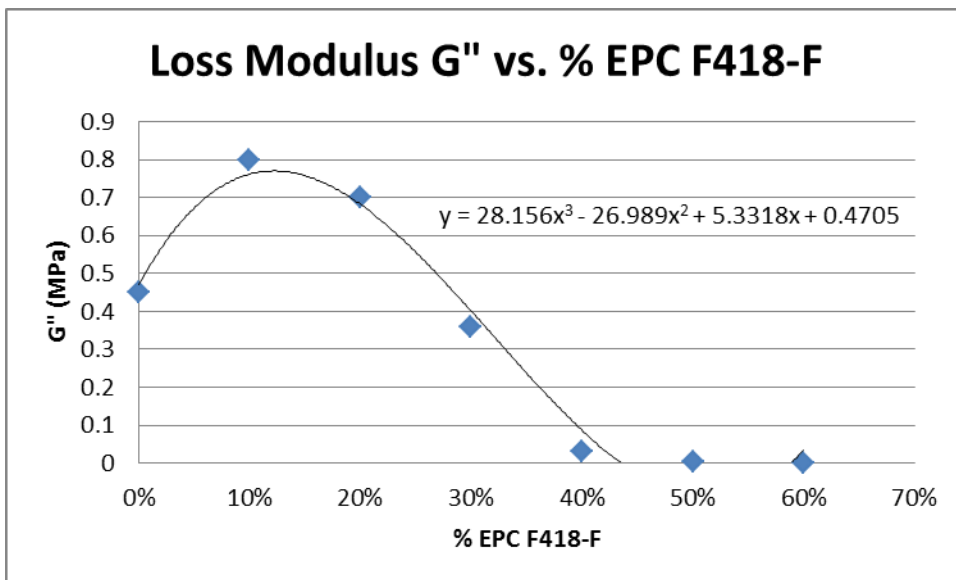
Graph 1: Shore D hardness vs. percentage of Silmer EPC F418-F in cycloaliphatic epoxy/anhydride system



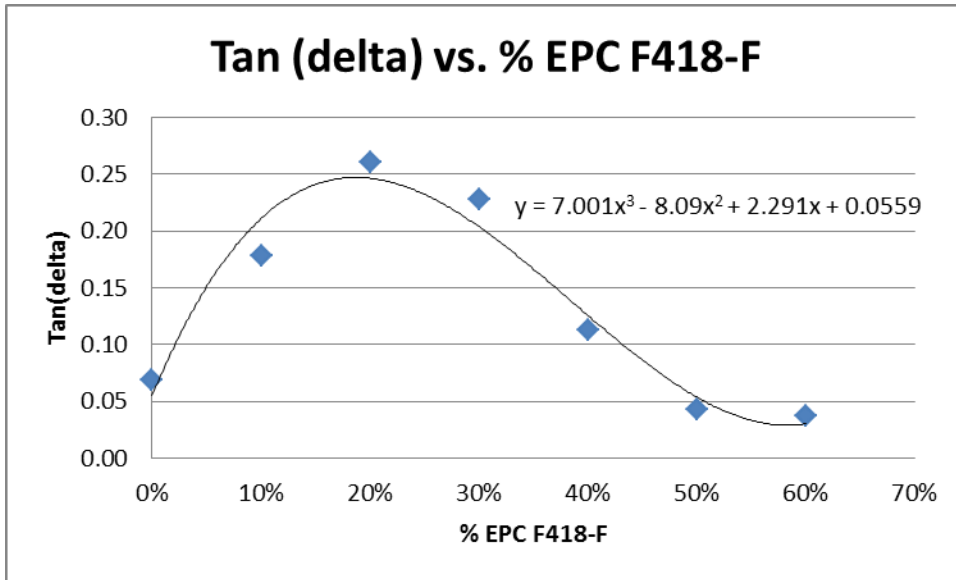
Graph 2: Storage modulus G' vs. percentage of Silmer EPC F418-F in cycloaliphatic epoxy/anhydride system



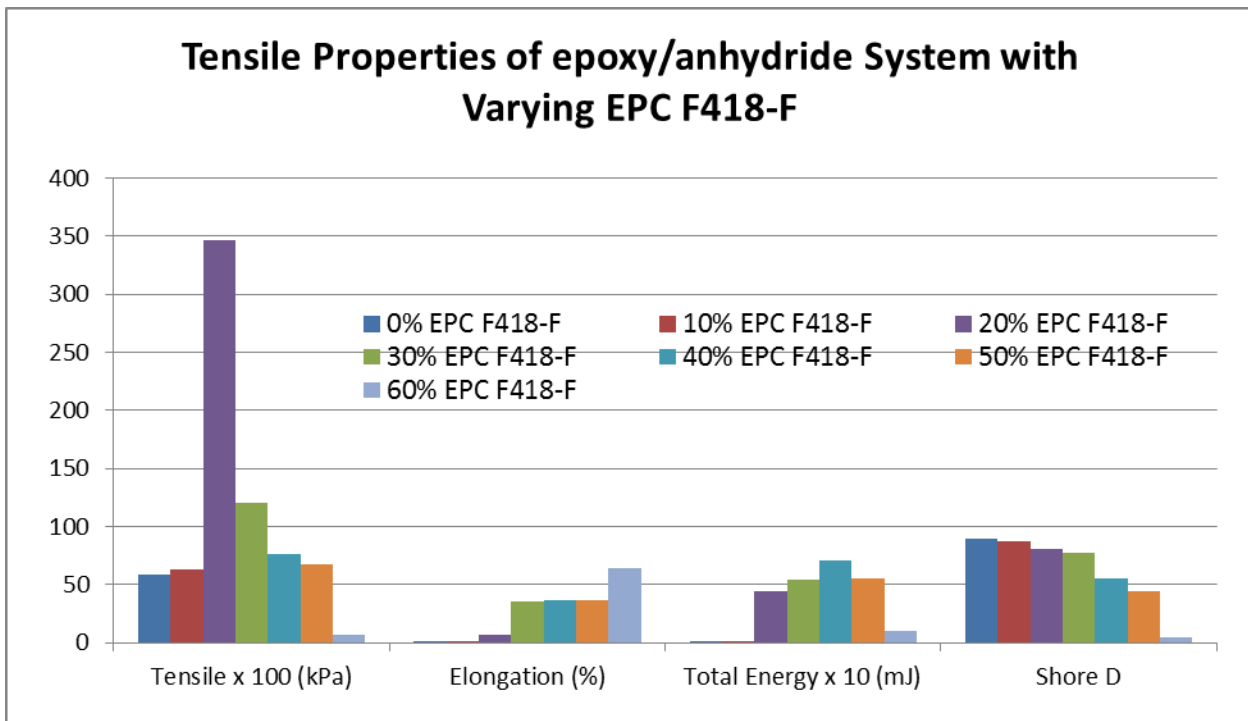
Graph 3: Loss modulus G'' vs. percentage of Silmer EPC F418-F in cycloaliphatic epoxy/anhydride system



Graph 4: Tan(delta) (Dampening) vs. percentage of Silmer EPC F418-F in cycloaliphatic epoxy/anhydride system



Graph 5: Tensile and hardness properties vs. percentage of Silmer EPC F418-F in cycloaliphatic epoxy/anhydride system



SHELF LIFE

When stored in the original, unopened containers between 10 and 40⁰C, **Silmer[®]EPC F418-F** has a shelf life of 24 months from date of manufacture.

PACKAGING

Silmer[®]EPC F418-F is supplied in 20kg pails and 200kg drums.

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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