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TECHNICAL DATA SHEET

HELPFUL HINTS FOR USING SOLARITE KM-2740/4200 SERIES RTV SILICONES IN CABLE CONSTRUCTIONS

INTRODUCTION

The following information is intended to give general guidelines for the mixing, use and application of **SOLARITE RTV SILICONES** in cable constructions. For clarification or further information, please contact our Technical Department at 908-862-2813 or www.sales@solarcompounds.com

1) CONSTRUCTION MATERIALS

It is important to qualify all materials used in the cable construction by testing the materials (insulation, jackets, tapes, etc.) individually for compatibility with the curing RTV silicone. Residual byproducts in the chemical reactions of construction materials can sometimes poison (inhibit) the cure of the silicone. Poison may be only present temporarily in some construction materials and will not pose a problem after a week or so. Therefore, freshly made construction materials should be tested along side aged materials for poisoning. If a problem occurs, please contact our Technical Department directly; they will be able to recommend products to avoid this problem such as **KM-2740AP (ANTI-POISON)**, **KM-2740FC (FAST CURE)**, and **KM-2740 SPECIALS**.

2) PACKAGING

All **SOLARITE SILICONES** are available in custom packaging designed for manual mixing and automatic dispensing. It is very important to have the correct packaging type, particularly for automatic dispensing equipment. Mis-matched or the wrong size pail or drum can waste

materials and cause products to be mixed off-ratio, leading to curing and potential performance deficiencies.

3) MIXING

Poorly mixed product will affect cure time and product performance.

MANUAL MIXING

As with any two-component reactive system, it is very important to ensure that the Part A and Part B materials are mixed individually before use to incorporate any separation or settlement that may occur. When Part A and Part B are combined, they should be mixed for at least 5 minutes to a streak-free uniform color.

NOTE

When mixing individual components, ensure that separate spatulas, scrapers, and mixing blades are used. Cross contamination can cause the pails to prematurely cure rendering them unusable the next time the pail is to be used.

AUTOMATIC DISPENSING EQUIPMENT

Always ensure that the Part A and Part B materials are uniform and mixed well before use either by hand or that storage containers do have sufficient agitation. Poorly mixed products or non-uniform products can cause curing and performance differences in the cable construction.

Always check that the dispensed product is at the correct ratio by taking periodic sample shots and measuring them on a gram balance.

4) PRODUCTION AND MATERIAL PARAMETERS

a) TEMPERATURE

Temperature has a significant effect on the speed of reaction of RTV silicones. Raising the temperature by 10°C or approximately 15°F will double the rate of reaction and half the work time. Therefore, a product with a 5 to 8 hour gel time at 75°F will have a gel time of 2-1/2 to 4 hours at 90°F that significantly affects the work life of the product in the dip tank. **SOLAR COMPOUNDS** offers custom cure products to avoid working time problems at

elevated temperatures like the **KM-2740SC (SLOW CURE)** with a gel time of 8 to 10 hours.

Additionally, application of heat to the final cable construction can be used to quick cure the product for faster production times.

b) MIXING RATIO

Optimum performance is achieved when the silicones are mixed at a 1:1 ratio; however, under special circumstances, product can be mixed off-ratio to help extend pot life and reduce tendency to be poisoned. Usually, more Part A, or green component, is added and the Part B (white component) is reduced. Acceptable variation in mix ratio is 50 to 60 Parts A to 50 to 40 Parts B.

NOTE

Always consult **SOLAR COMPOUNDS' TECHNICAL DEPARTMENT** if ratio adjustment is needed to overcome a problem.

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