# NuSil R-2145

#### Silicone

### **NuSil Technology**

### Message:

The Aircraft Industry has used silicone adhesives and coatings for over five decades. Silicone's ability to maintain its elasticity and low modulus over a broad temperature range provides excellent utility in extreme environments. Recent advances in material technology provide more opportunities for the Aircraft engineer in choosing the best material for an intended application. Examples of NuSil's capabilities in custom silicones for Aircraft are demonstrated in the following sections.

**Fuel Resistance** 

Static Dissipation and Electrically Conductive Silicones

**Ice-Phobic Coatings** 

General Information

General Purpose: Adhesives and Sealants Comment: Extremely Tough, Fast Cure Elastomer

| Features                        | Electrically Conductive  Fast Cure  Fuel Resistant |       |  |
|---------------------------------|--|-------|--|
|                                 |  |       |  |
|                                 |  |       |  |
|                                 | Ultra High Toughness                               |       |  |
|                                 |  |       |  |
| Uses                            | Adhesives  |       |  |
|                                 | Aircraft Applications                              |       |  |
|                                 | Sealants   |       |  |
|                                 |  |       |  |
| Thermoset                       | Nominal Value                                      | Unit  |  |
| Thermoset Components            |  |       |  |
| Part A                          | Mix Ratio by Weight: 1.0                           |       |  |
| Part B                          | Mix Ratio by Weight: 1.0                           |       |  |
| Additional Information          | Nominal Value                                      | Unit  |  |
| Cure System                     | Platinum   |       |  |
| Extrusion Rate                  |  |       |  |
| Part A                          | 275  | g/min |  |
| Part B                          | 240 g/min  |       |  |
| Operating Temperature           | -50 to 200 °C                                      |       |  |
| Uncured Properties              | Nominal Value Unit                                 |       |  |
| Color                           | Grey   |       |  |
| Density                         | 0.998 g/cm³  |       |  |
| Curing Time (65°C)              | 2.0 hr   |       |  |
| Pot Life                        | 15   | min   |  |
| Cured Properties                | Nominal Value                                      | Unit  |  |
| Shore Hardness (Shore A)        | 45   |       |  |
| Lap Shear Strength <sup>1</sup> | 4.14   | MPa   |  |
| Tensile Strength                | 7.24   | MPa   |  |

| Tensile Elongation at Break | 400  | %     |
|-----------------------------|------|-------|
| Tear Strength               | 26.3 | kN/m  |
| Electric Strength           | 32   | kV/mm |
| NOTE                        |      |       |

1. Primed with CF1-135

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