

## TECHNICAL INFORMATION

### WS-516 Sealing Compound

MEETS THE REQUIREMENTS OF SPECIFICATION (MIL-S-8516F & PRF-8516G)

#### PRODUCT DESCRIPTION

WS-516 is especially formulated for the sealing, insulation and reinforcement of electrical connectors, wiring and other electrical apparatus. WS-516 protects against corrosion, moisture, and contamination and also reduces the arc over between pins of an electrical connector.

WS-516 is a two- part material consisting of a Base Compound and an Accelerator. After mixing, WS-516 cures at room temperature to a firm resilient rubber. WS-516 exhibits excellent adhesion to metals and plastics and also has outstanding resistance to weather, water, and corrosion.

WS-516 is available in the following Types and Classes:

#### **TYPES**

- ◆ Type I: Low Viscosity (100 to 400 poises) initial mixed viscosity
- ◆ Type II: High Viscosity (401 to 1200 poises) initial mixed viscosity

#### **CLASSES**

- ◆ Class 1: 24 Hours cure @ 77°F
- ◆ Class 2: 48 Hours cure @ 77°F
- ◆ Class 3: 72 Hours cure @ 77°F

#### TYPICAL PROPERTIES

##### **BASE COMPOUND**

Color	White
Consistency	Type I- 300 poises, Type II- 900 poises
Non-Volatile Content	Type I-95%, Type II-97%

##### **ACCELERATOR**

Appearance	Brown Paste
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##### **MIXING INSTRUCTIONS**

100 Parts by weight of WS-516 Base Compound is mixed with 10 Parts by weight of WS-516 Accelerator until uniform.

##### **APPLICATION LIFE**

Class 1	30 Minutes Minimum
Class 2	60 Minutes Minimum
Class 3	120 Minutes Minimum

#### **CURED PROPERTIES**

(Test conducted according to MIL-S-8516F & PRF-8516G)

Color	Brown
Shrinkage	Type I- 8%, Type II-5%
Hardness	40 Shore A
Adhesion	25 lbs./inch (Aluminum, Alloy, Chromated, Cadmium Plate, Diallyl Phtalate Plastic, Nylon Plastic, T.F.E.)

Adhesion after Fluid immersion	25 lbs./inch
Low Temperature Flexibility	No checking, cracking or separation at -65°F

Hydrolytic stability specification.	Meets requirements of the
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#### **ELECTRICAL PROPERTIES**

(CURED RUBBER MIL-S-8516F & PRF-8516G)

Arc Resistance	75 Seconds
Dielectric Strength	300 Volts/mil.
Dielectric Constant	1 kc @ 77°F – 7
	1 mc @ 77°F – 7
	1 kc @ 185°F – 6.7
	1 mc @ 185°F – 6.7

#### **RESISTIVITY**

Volume @ 77°F	1 x 10 <sup>12</sup> ohm/cm
Surface @ 77°F	1 x 10 <sup>13</sup> ohm/cm
Volume @ 185°F	2 x 10 <sup>11</sup> ohm/cm
Surface @ 185°F	2 x 10 <sup>11</sup> ohm/cm
Dissipation Factor	Meets specification requirements

#### **INSULATION**

##### **RESISTANCE**

Initial	20,000 meg ohms minimum
After thermal Shock	20,000 meg ohms minimum
After Hydrolic Stability	20,000 meg ohms minimum
High Potential Resistance	No Breakdown
Air Leakage	Less than 0.5 cubic inches per hour
Overload	Does not ignite

#### PACKAGING

WS-516 is packaged in Gallon, Quart, Pint and 1/2 Pint Kits containing pre weighed amounts of Base Compound and Accelerator.

### **STORAGE**

Flammable liquid.

### **ADDITIONAL INFORMATION**

Visit our web site at:

[www.bergdahl.com](http://www.bergdahl.com)

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### **NOTE**

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