S7253 SERIES POTTING COMPOUND

The S7253 series of materials are an excellent choice for the potting/encapsulation of sensitive electronics that are exposed to harsh environments. S7253 series of products feature many process/application friendly properties such as:

- Low mixed viscosity for superior flow into tight tolerance electronic applications
- Good thermal conductivity
- Low weight loss at elevated temperatures
- 125 °C operating temperature
- Outstanding adhesion to various metal and plastic potting cases
- RoHS compliant
- UL Recognized or Designed to Pass
- Thermal cycling between -40 °C and 85 °C
- Good electrical properties
- Excellent moisture resistance
- Moisture level forgiveness

S7253 materials are versatile polyurethane potting compounds used in a variety of applications including:

- LED outdoor displays
- Universal reader for security systems
- Various Sensors
- Control module potting
- Electronic potting for the pool and spa industry
- Energy storage devices
- Automotive applications

The S7253 Series of materials have the same cured/typical properties but do vary in color, processing time (gel time, pot life) and viscosities. This material is an excellent candidate as a low cost urethane for potting applications.
### Cured Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Temp</td>
<td>125 °C (maximum continuous)</td>
</tr>
<tr>
<td>Tg (Glass Transition, ASTM E1545)</td>
<td>-2 – 2 °C</td>
</tr>
<tr>
<td>Specific Heat (ASTM E1269)</td>
<td>1.10 – 1.20 J/gK @ 100 °C</td>
</tr>
<tr>
<td>Thermal Cycles Passed</td>
<td>10 (less than -55 °C to 105 °C)</td>
</tr>
<tr>
<td>Weight Change</td>
<td>After 7 days @ 125 °C: -0.29 – -0.31%</td>
</tr>
<tr>
<td>Hardness (ASTM D2240)</td>
<td>Shore A: 82 – 88 @ 25 °C</td>
</tr>
<tr>
<td></td>
<td>Shore A: 90 – 96 (2 hrs @ 65 °C+ 7 days @ 125 °C)</td>
</tr>
</tbody>
</table>

#### Tensile Strength (ASTM D638 or D412)

<table>
<thead>
<tr>
<th>Temperature</th>
<th>PSI</th>
</tr>
</thead>
<tbody>
<tr>
<td>-25 °C</td>
<td>5011 – 5953</td>
</tr>
<tr>
<td>0 °C</td>
<td>2847 – 3762</td>
</tr>
<tr>
<td>25 °C</td>
<td>781 – 948</td>
</tr>
<tr>
<td>50 °C</td>
<td>370 – 442</td>
</tr>
<tr>
<td>70 °C</td>
<td>362 – 416</td>
</tr>
</tbody>
</table>

#### Shrinkage (ASTM D2566)

<table>
<thead>
<tr>
<th>Cured Temp / Time</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 °C for 24 hours</td>
<td>0.048 – 0.052</td>
</tr>
<tr>
<td>65 °C for 24 hours</td>
<td>0.77 – 0.085</td>
</tr>
</tbody>
</table>

#### Coeff Therm Exp. (ASTM D696)

<table>
<thead>
<tr>
<th>Coeff Therm Exp.</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>(EXP-6) in/in °C</td>
<td>79.5 – 87</td>
</tr>
</tbody>
</table>

#### Thermal Conductivity (ASTM D2214)

<table>
<thead>
<tr>
<th>BTU</th>
<th>3.9 – 4.1 BTU in/hr ft2 F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cal Cm</td>
<td>13.8 – 14.2 (ECP -4) Cal Cm/ Sec Cm2 °C</td>
</tr>
<tr>
<td>W/mK</td>
<td>0.55 – .6 W/mK</td>
</tr>
</tbody>
</table>

#### Elongation (ASTM D412)

<table>
<thead>
<tr>
<th>Temperature</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>-25 °C</td>
<td>2.5 – 4.5</td>
</tr>
<tr>
<td>0 °C</td>
<td>7 – 9</td>
</tr>
<tr>
<td>25 °C</td>
<td>140 – 160</td>
</tr>
<tr>
<td>50 °C</td>
<td>40 – 60</td>
</tr>
<tr>
<td>70 °C</td>
<td>25 – 35</td>
</tr>
</tbody>
</table>

#### Modulus of Elasticity (ASTM D638 or D412)

<table>
<thead>
<tr>
<th>Temperature</th>
<th>PSI</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 °C</td>
<td>32246 – 44144</td>
</tr>
<tr>
<td>25 °C</td>
<td>1139 – 1428</td>
</tr>
<tr>
<td>50 °C</td>
<td>1495 – 2349</td>
</tr>
<tr>
<td>70 °C</td>
<td>1547 – 1910</td>
</tr>
</tbody>
</table>

### Electrical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dielectric Constant</td>
<td>(ASTM D150) 3.71 – 4.1 @ 100 kHz</td>
</tr>
<tr>
<td>Dissipation Factor</td>
<td>(ASTM D150) 0.0314 – 0.0346 @ 100 kHz</td>
</tr>
<tr>
<td>Dielectric Strength</td>
<td>(ASTM D149) 335 – 365 Volts/mil @ 0.25&quot;</td>
</tr>
<tr>
<td>Volume Resistivity</td>
<td>(ASTM D257) 4.40e+13 – 4.80e=13 ohm cm</td>
</tr>
</tbody>
</table>

---

### Diagrams

- Volume resistivity at 62 mile when aged at 25C and 125C
- Dielectric strength at 62 miles over time when aged at 25C and 125C
- Dielectric Constant at 62 miles over time when aged at 25C and 125C
- Dissipation factor at 62 miles over time when aged at 25C and 125C
**S7253 ORIGINAL**

UL File Number E55516 Plastics Component
Flammability (UL): Recognized UL 94 V-0 @ 9.0 mm
RoHS Compliant

**GENERAL PROPERTIES**

- Color Part A: Opaque
- Color Part B: Amber
- Color Mixed: Tan

**MATERIAL PROPERTIES**

- Mix Ratio by Weight:
  - 100:18.2
- Mix Ratio by Volume:
  - 100:21.4
- Viscosity @ 25 ˚C:
  - Part A: 20 RPM : 5,000 – 8,000 CPS
  - Part B: 800 RPM : 35 – 65 CPS
  - Mixed: 20 RPM : 1,600 – 2,000 CPS
- Weight Per Gallon:
  - Part A: 11.50 – 12.50 lb/gal
  - Part B: 10.15 – 10.25 lb/gal
  - Mixed: 11.50 – 11.80 lb/gal

**MIXED PROPERTIES**

- Gel Time ASTM D3056 (118 Grams) 20 – 40 minutes @ 25 ˚C
- Pot Life (100 Grams) 18 – 20 minutes @ 25 ˚C
- Cure Schedule, Hours 48 – 54 hours @ 25 ˚C
- Alternate Cure, Hours 2 – 2.5 hours @ 65 ˚C

**CURED PROPERTIES**

See “Common Properties” on page 2.

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**S7253-01**

UL File Number E55516 Plastics Component
Flammability (UL): Recognized UL 94 V-0 @ 9.0 mm
RoHS Compliant

**GENERAL PROPERTIES**

- Identification: Potting Compound/Urethane
- Component Count: 2
- Color Part A: Black
- Color Part B: Amber
- Color Mixed: Black
- Shelf Life @ 25 ˚C: 9 Months
- Filler Stability Part A: Good
- Filler Stability Part B: Unfilled

**MATERIAL PROPERTIES**

- Mix Ratio by Weight:
  - 100:18.2
- Mix Ratio by Volume:
  - 100:21.4
- Viscosity @ 25 ˚C:
  - Part A: 20 RPM : 5,000 – 8,000 CPS
  - Part B: 800 RPM : 35 – 65 CPS
  - Mixed: 20 RPM : 1,600 – 2,000 CPS
- Weight Per Gallon:
  - Part A: 11.50 – 12.50 lb/gal
  - Part B: 10.15 – 10.25 lb/gal
  - Mixed: 11.50 – 11.80 lb/gal

**MIXED PROPERTIES**

- Gel Time ASTM D3056 (118 Grams) 20 – 30 minutes @ 25 ˚C
- Pot Life (100 Grams) 18 – 20 minutes @ 25 ˚C
- Cure Schedule, Hours 48 – 54 hours @ 25 ˚C
- Alternate Cure, Hours 2 – 2.5 hours @ 65 ˚C

**CURED PROPERTIES**

See “Common Properties” on page 2.

---

**S7253-02**

UL File Number E55516 Plastics Component
Flammability (UL): Recognized UL 94 V-0 @ 9.0 mm

**GENERAL PROPERTIES**

- Color Part A: White
- Color Part B: Amber
- Color Mixed: Off-White

**MATERIAL PROPERTIES**

- Mix Ratio by Weight:
  - 100:18.2
- Mix Ratio by Volume:
  - 100:21.6
- Viscosity @ 25 ˚C:
  - Part A: 20 RPM : 4,500 – 6,500 CPS
  - Part B: 800 RPM : 35 – 65 CPS
  - Mixed: 20 RPM : 1,800 – 2,200 CPS
- Weight Per Gallon:
  - Part A: 11.50 – 12.50 lb/gal
  - Part B: 10.15 – 10.25 lb/gal
  - Mixed: 11.50 – 11.80 lb/gal

**MIXED PROPERTIES**

- Gel Time ASTM D3056 (118 Grams) 20 – 30 minutes @ 25 ˚C
- Pot Life (100 Grams) 18 – 20 minutes @ 25 ˚C
- Cure Schedule, Hours 48 – 54 hours @ 25 ˚C
- Alternate Cure, Hours 2 – 2.5 hours @ 65 ˚C

**CURED PROPERTIES**

See “Common Properties” on page 2.

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**S7253-03**

UL File Number E55516 Plastics Component
Flammability (UL): Recognized UL 94 V-1 @ 12.2 mm
94 V-2 @ 9.0mm
RoHS Compliant

**GENERAL PROPERTIES**

- Color Part A: Blue
- Color Part B: Amber
- Color Mixed: Blue

**MATERIAL PROPERTIES**

- Mix Ratio by Weight:
  - 100:18.2
- Mix Ratio by Volume:
  - 100:21.4
- Viscosity @ 25 ˚C:
  - Part A: 20 RPM : 5,000 – 8,000 CPS
  - Part B: 800 RPM : 35 – 65 CPS
  - Mixed: 20 RPM : 1,600 – 2,000 CPS
- Weight Per Gallon:
  - Part A: 11.5 – 12.50 lb/gal
  - Part B: 10.15 – 10.25 lb/gal
  - Mixed: 11.50 – 11.80 lb/gal

**MIXED PROPERTIES**

- Gel Time ASTM D3056 (100 Grams) 20 – 30 minutes @ 25 ˚C
- Pot Life (100 Grams) 18 – 20 minutes @ 25 ˚C
- Cure Schedule, Hours 48 – 54 hours @ 25 ˚C
- Alternate Cure, Hours 2 – 2.5 hours @ 65 ˚C

**CURED PROPERTIES**

See “Common Properties” on page 2.
**MATERIAL PROPERTIES**

Mix Ratio by Weight 100:18.2
Mix Ratio by Volume 100:21.4
Viscosity @ 25 °C Part A: 20 RPM : 5,000 – 8,000 CPS
Part B: 800 RPM : 35 – 65 CPS
Mixed: 20 RPM : 1,900 – 2,100 CPS
Weight Per Gallon Part A: 11.5 – 12.50 lb/gal
Part B: 10.15 – 10.25 lb/gal
Mixed: 11.50 – 11.80 lb/gal

**MIXED PROPERTIES**

Gel Time ASTM D3056 (100 Grams) 20 – 40 minutes @ 25 °C
Pot Life (100 Grams) 15 – 35 minutes @ 25 °C
Cure Schedule, Hours 48 – 54 hours @ 25 °C
Alternate Cure, Hours 2 – 2.5 hours @ 65 °C

**CURED PROPERTIES**

See “Common Properties” on page 2.

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**MATERIAL PROPERTIES**

Mix Ratio by Weight 100:18.2
Mix Ratio by Volume 100:21.4
Viscosity @ 25 °C Part A: 20 RPM : 5,000 – 8,000 CPS
Part B: 800 RPM : 35 – 65 CPS
Mixed: 20 RPM : 1,600 – 2,000 CPS
Weight Per Gallon Part A: 11.5 – 12.50 lb/gal
Part B: 10.15 – 10.25 lb/gal
Mixed: 11.50 – 11.80 lb/gal

**MIXED PROPERTIES**

Gel Time ASTM D3056 (100 Grams) 7 – 12 minutes @ 25 °C
Pot Life (100 Grams) 5 – 7 minutes @ 25 °C
Cure Schedule, Hours 48 – 54 hours @ 25 °C
Alternate Cure, Hours 2 – 2.5 hours @ 65 °C

**CURED PROPERTIES**

See “Common Properties” on page 2.

---

**S7253-04**

UL File Number E55516 Plastics Component
Flammability (UL): Recognized UL 94 V-0 @ 9.0 mm
RoHS Compliant

**GENERAL PROPERTIES**

Color Part A Black
Color Part B Amber
Color Mixed Black

**MATERIAL PROPERTIES**

Mix Ratio by Weight 100:18.2
Mix Ratio by Volume 100:21.4
Viscosity @ 25 °C Part A: 20 RPM : 5,000 – 8,000 CPS
Part B: 800 RPM : 35 – 65 CPS
Mixed: 20 RPM : 1,600 – 2,000 CPS
Weight Per Gallon Part A: 11.5 – 12.50 lb/gal
Part B: 10.15 – 10.25 lb/gal
Mixed: 11.50 – 11.80 lb/gal

**MIXED PROPERTIES**

Gel Time ASTM D3056 (118 Grams) 20 – 30 minutes @ 25 °C
Pot Life (100 Grams) 18 – 20 minutes @ 25 °C
Cure Schedule, Hours 48 – 54 hours @ 25 °C
Alternate Cure, Hours 2 – 2.5 hours @ 65 °C

**CURED PROPERTIES**

See “Common Properties” on page 2.

---

**S7253-05**

Flammability (UL): Designed to pass UL 94 V-0 @ 9.0mm
RoHS Compliant

**GENERAL PROPERTIES**

Color Part A Blue
Color Part B Amber
Color Mixed Dark Blue

**MATERIAL PROPERTIES**

Mix Ratio by Weight 100:18.2
Mix Ratio by Volume 100:21.4
Viscosity @ 25 °C Part A: 20 RPM : 5,000 – 8,000 CPS
Part B: 800 RPM : 35 – 65 CPS
Mixed: 20 RPM : 1,600 – 2,000 CPS
Weight Per Gallon Part A: 11.5 – 12.50 lb/gal
Part B: 10.15 – 10.25 lb/gal
Mixed: 11.50 – 11.80 lb/gal

**MIXED PROPERTIES**

Gel Time ASTM D3056 (100 Grams) 40 minutes minimum @ 25 °C
Pot Life (100 Grams) 30 – 40 minutes @ 25 °C
Cure Schedule, Hours 48 – 54 hours @ 25 °C
Alternate Cure, Hours 2 – 2.5 hours @ 65 °C

CURED PROPERTIES
See “Common Properties” on page 2.

S7253-07
UL File Number E55516 Plastics Component
Flammability (UL): Recognized UL 94 V-0 @ 9.0 mm
RoHS Compliant

GENERAL PROPERTIES
Color Part A White
Color Part B Amber
Color Mixed Off-White

MATERIAL PROPERTIES
Mix Ratio by Weight 100:18.2
Mix Ratio by Volume 100:21.6
Viscosity @ 25 °C Part A: 20 RPM : 5,000 – 8,000 CPS
Part B: 800 RPM : 35 – 65 CPS
Mixed: 20 RPM : 1,800 – 2,200 CPS
Weight Per Gallon Part A: 11.5 – 12.50 lb/gal
Part B: 10.15 – 10.25 lb/gal
Mixed: 11.50 – 11.80 lb/gal

MIXED PROPERTIES
Gel Time ASTM D3056 (100 Grams) 7 – 12 minutes @ 25 °C
Pot Life (100 Grams) 5 – 7 minutes @ 25 °C
Cure Schedule, Hours 48 – 54 hours @ 25 °C
Alternate Cure, Hours 2 – 2.5 hours @ 65 °C

CURED PROPERTIES
See “Common Properties” on page 2.

S7253-08
Flammability (UL): Designed to pass UL 94 V-0 @ 9.00 mm
RoHS Compliant

GENERAL PROPERTIES
Color Part A Gray
Color Part B Amber
Color Mixed Gray

MATERIAL PROPERTIES
Mix Ratio by Weight 100:18.2
Mix Ratio by Volume 100:21.6
Viscosity @ 25 °C Part A: 20 RPM : 4,500 – 6,500 CPS
Part B: 800 RPM : 35 – 65 CPS
Mixed: 20 RPM : 1,800 – 2,200 CPS
Weight Per Gallon Part A: 11.5 – 12.50 lb/gal
Part B: 10.15 – 10.25 lb/gal
Mixed: 11.50 – 11.80 lb/gal

MIXED PROPERTIES
Gel Time ASTM D3056 (100 Grams) 20 – 30 minutes @ 25 °C
Pot Life (100 Grams) 18 – 20 minutes @ 25 °C
Cure Schedule, Hours 48 – 54 hours @ 25 °C
Alternate Cure, Hours 2 – 2.5 hours @ 65 °C

CURED PROPERTIES
See “Common Properties” on page 2.

S7253-09
Flammability (UL): Designed to pass UL 94 V-0 @ 9.00 mm
RoHS Compliant

GENERAL PROPERTIES
Color Part A Black
Color Part B Amber
Color Mixed Black

MATERIAL PROPERTIES
Mix Ratio by Weight 100:18.2
Mix Ratio by Volume 100:21.4
Viscosity @ 25 °C Part A: 20 RPM : 7,000 – 9,000 CPS
Part B: 800 RPM : 35 – 65 CPS
Mixed: 20 RPM : 1,800 – 2,500 CPS
Weight Per Gallon Part A: 11.5 – 12.50 lb/gal
Part B: 10.15 – 10.25 lb/gal
Mixed: 11.50 – 11.80 lb/gal

MIXED PROPERTIES
Gel Time ASTM D3056 (100 Grams) 20 – 30 minutes @ 25 °C
Pot Life (100 Grams) 18 – 20 minutes @ 25 °C
Cure Schedule, Hours 48 – 54 hours @ 25 °C
Alternate Cure, Hours 2 – 2.5 hours @ 65 °C

CURED PROPERTIES
See “Common Properties” on page 2.

S7253-10
Flammability (UL): Designed to pass UL 94 V-0 @ 9.0 mm
RoHS Compliant

GENERAL PROPERTIES
Color Part A Gray
Color Part B Amber
Color Mixed Gray
### MATERIAL PROPERTIES

<table>
<thead>
<tr>
<th>Mix Ratio by Weight</th>
<th>100:18.2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mix Ratio by Volume</td>
<td>100:21.6</td>
</tr>
</tbody>
</table>
| Viscosity @ 25 °C   | Part A: 20 RPM : 4,500 – 6,500 CPS  
Part B: 800 RPM : 35 – 65 CPS  
Mixed: 20 RPM : 1,800 – 2,200 CPS |
| Weight Per Gallon   | Part A: 11.5 – 12.50 lb/gal  
Part B: 10.15 – 10.25 lb/gal  
Mixed: 11.50 – 11.80 lb/gal |

### MIXED PROPERTIES

| Gel Time ASTM D3056 (100 Grams) | 40 minutes minimum @ 25 °C |
| Pot Life (100 Grams)            | 30 – 40 minutes @ 25 °C |
| Cure Schedule, Hours            | 48 – 54 hours @ 25 °C |
| Alternate Cure, Hours            | 2 – 2.5 hours @ 65 °C |

### CURSED PROPERTIES

See “Common Properties” on page 2.

### S7253-11

UL File Number E55516 Plastics Component  
Flammability (UL): Recognized UL 94 V-0 @ 9.0 mm  
RoHS Compliant

### GENERAL PROPERTIES

| Color Part A | Black |
| Color Part B | Amber |
| Color Mixed  | Black |

### MATERIAL PROPERTIES

<table>
<thead>
<tr>
<th>Mix Ratio by Weight</th>
<th>100:18.2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mix Ratio by Volume</td>
<td>100:21.4</td>
</tr>
</tbody>
</table>
| Viscosity @ 25 °C   | Part A: 20 RPM : 5,000 – 8,000 CPS  
Part B: 800 RPM : 35 – 65 CPS  
Mixed: 20 RPM : 1,600 – 2,000 CPS |
| Weight Per Gallon   | Part A: 11.50 – 12.50 lb/gal  
Part B: 10.15 – 10.25 lb/gal  
Mixed: 11.50 – 11.80 lb/gal |

### MIXED PROPERTIES

| Gel Time ASTM D3056 (100 Grams) | 2 – 6 minutes @ 25 °C |
| Pot Life (100 Grams)            | 1 – 4 minutes @ 25 °C |
| Cure Schedule, Hours            | 48 – 54 hours @ 25 °C |
| Alternate Cure, Hours            | 2 – 2.5 hours @ 65 °C |

### CURSED PROPERTIES

See “Common Properties” on page 2.

### S7253-12

Flammability (UL): Designed to pass UL 94 V-0 @ 9.0 mm  
RoHS Compliant

### GENERAL PROPERTIES

| Color Part A | Black |
| Color Part B | Amber |
| Color Mixed  | Black |

### MATERIAL PROPERTIES

<table>
<thead>
<tr>
<th>Mix Ratio by Weight</th>
<th>100:18.2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mix Ratio by Volume</td>
<td>100:21.4</td>
</tr>
</tbody>
</table>
| Viscosity @ 25 °C   | Part A: 20 RPM : 10,000 – 15,000 CPS  
Part B: 800 RPM : 35 – 65 CPS  
Mixed: 20 RPM : 4,000 – 4,500 CPS |
| Weight Per Gallon   | Part A: 11.92 – 12.22 lb/gal  
Part B: 10.15 – 10.25 lb/gal  
Mixed: 11.60 – 11.87 lb/gal |

### MIXED PROPERTIES

| Gel Time ASTM D3056 (118.2 Grams) | 20 – 40 minutes @ 25 °C |
| Pot Life (100 Grams)             | 18 – 20 minutes @ 25 °C |

### CURSED PROPERTIES

See “Common Properties” on page 2.
Cure Schedule, Hours  48 – 54 hours @ 25 °C
Alternate Cure, Hours  2 – 2.5 hours @ 65 °C

CURED PROPERTIES
See “Common Properties” on page 2.

S7253-14
Flammability (UL): Designed to pass UL 94 V-0 @ 9.0 mm
RoHS Compliant

GENERAL PROPERTIES
Color Part A  Black
Color Part B  Amber
Color Mixed  Black

MATERIAL PROPERTIES
Mix Ratio by Weight  100:18.2
Mix Ratio by Volume  100:21.4
Viscosity @ 25 °C
Part A: 20 RPM : 7,000 – 9,000 CPS
Part B: 800 RPM : 35 – 65 CPS
Mixed: 20 RPM : 1,800 – 2,500 CPS
Weight Per Gallon
Part A: 11.50 – 12.50 lb/gal
Part B: 10.15 – 10.25 lb/gal
Mixed: 11.50 – 11.80 lb/gal

MIXED PROPERTIES
Gel Time ASTM D3056 (118.2 Grams)  60 – 90 minutes @ 25 °C
Pot Life (100 Grams)  40 – 50 minutes @ 25 °C
Cure Schedule, Hours  48 – 54 hours @ 25 °C
Alternate Cure, Hours  2 – 2.5 hours @ 65 °C

CURED PROPERTIES
See “Common Properties” on page 2.

S7253-16
Flammability (UL): Designed to pass UL 94 V-0 @ 9.0 mm
RoHS Compliant

GENERAL PROPERTIES
Color Part A  Black
Color Part B  Amber
Color Mixed  Black

MATERIAL PROPERTIES
Mix Ratio by Weight  100:18.2
Mix Ratio by Volume  100:21.4
Viscosity @ 25 °C
Part A: 20 RPM : 5,000 – 8,000 CPS
Part B: 800 RPM : 35 – 65 CPS
Mixed: 20 RPM : 1,600 – 2,000 CPS
Weight Per Gallon
Part A: 11.50 – 12.50 lb/gal
Part B: 10.15 – 10.25 lb/gal
Mixed: 11.50 – 11.80 lb/gal

MIXED PROPERTIES
Gel Time ASTM D3056 (100 Grams)  60 – 90 minutes @ 25 °C
Pot Life (100 Grams)  40 – 50 minutes @ 25 °C
Cure Schedule, Hours  48 – 54 hours @ 25 °C
Alternate Cure, Hours  2 – 2.5 hours @ 65 °C

CURED PROPERTIES
See “Common Properties” on page 2.
MIXING INSTRUCTIONS

Before mixing Part A with Part B ensure that the Part A is completely homogenous and does NOT display any separation or settling. When hand mixing two component polyurethanes, the ideal method is to mix by weight using a balance or digital scale. The mixing container should be placed on the scale and set to read zero, the appropriate amount of resin should be weighed followed by the appropriate amount of hardener. It is important to note that polyurethane materials must be weighed as close to exact as possible with a +/- 2% margin of error. The material should then be stirred, ideally with a metal spatula, ensuring that the material is thoroughly mixed to a homogenous state (approximately 45 – 60 seconds) by scraping the sides, bottom and the area where the sides meet the bottom of the container. Failure to do so can result in uncured sections of material or altered properties of the cured material. It may be necessary to remove/or evacuate any excess air in the material that was caused by mixing. This can be done by pulling a vacuum on the material. The material should be in a container 3 – 5 times larger than the height of the liquid. When mixing polyurethanes, precautions should be taken to prevent any moisture from contaminating the material. The use of wood stir sticks and paper cups should be avoided due to their porosity and ability to hold moisture. When reclosing partial containers, an inert gas purge (argon or nitrogen) of the container should be used to prevent moisture contamination.

STORAGE AND HANDLING

All polyurethanes are moisture sensitive by nature and proper precautions need to be taken to ensure proper handling and storage. All containers should be purged to displace room air with dry Argon or dry nitrogen. Doing this ensures that most moisture filled air is no longer in the container. All containers should be stored indoors as close to 25 °C as possible. Please refer to the Material Safety Data Sheet when determining the proper precautions to be used when storing or handling Epic S7253. Epic Resins recommends that engineering controls be used to minimize employee exposure to this or any other industrial chemical.