# Starting Formulation

**SF 1816**

**Waterborne Red Iron Oxide Primer**

**EPI-REZ™ Resin 5522-WY-55 / EPIKURE™ Curing Agent 8290-Y-60**

<table>
<thead>
<tr>
<th>Formula</th>
<th>Material</th>
<th>Supplier</th>
<th>Pounds</th>
<th>Gallons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part A</td>
<td>EPI-REZ Resin 5522-WY-55</td>
<td>Hexion</td>
<td>330.0</td>
<td>37.21</td>
</tr>
<tr>
<td></td>
<td>Diacetone Alcohol</td>
<td>Shell Chemical Co.</td>
<td>7.0</td>
<td>0.89</td>
</tr>
<tr>
<td></td>
<td>Colloid 640 Defoamer</td>
<td>Rhodia</td>
<td>3.5</td>
<td>0.41</td>
</tr>
<tr>
<td></td>
<td>DI Water</td>
<td></td>
<td>80.0</td>
<td>9.60</td>
</tr>
<tr>
<td></td>
<td>RO-4097 Kroma Red</td>
<td>Elementis Pigments Inc.</td>
<td>100.0</td>
<td>2.45</td>
</tr>
<tr>
<td></td>
<td>Sparmit</td>
<td>Elementis Pigments Inc.</td>
<td>23.1</td>
<td>0.63</td>
</tr>
<tr>
<td></td>
<td>10ES Wollastokup</td>
<td></td>
<td>150.0</td>
<td>6.19</td>
</tr>
<tr>
<td></td>
<td>Halox SW-111</td>
<td>NYCO</td>
<td>100.0</td>
<td>4.20</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Halox Pigments, Inc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total Part A</strong></td>
<td></td>
<td>957.3</td>
<td>80.00</td>
</tr>
</tbody>
</table>

| Part B  | EPIKURE Curing Agent 8290-Y-60 | Hexion | 60.0 | 6.80   |
|         | DI Water                      |         | 11.0 | 1.32   |
|         | Zeesospheres Type 400         | 3M Industries, Inc. | 100.0 | 5.00   |
|         | Water Ground Mica, 325 mesh   | KMG Minerals, Inc. | 10.0  | 0.43   |
|         |                             |          |      |         |
|         | **Total Part B**             |          | 234.7 | 20.00  |

|         | **Total Part A & B**         |          | 1,192.0 | 100.00 |

**High Speed Disperse to a Texture of 6-7 N.S.**

<table>
<thead>
<tr>
<th>Material</th>
<th>Supplier</th>
<th>Pounds</th>
<th>Gallons</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>EPI-REZ Resin 5522-WY-55</td>
<td>Hexion</td>
<td>147.0</td>
</tr>
<tr>
<td></td>
<td>15% Sodium Nitrite Solution (in water)</td>
<td></td>
<td>8.0</td>
</tr>
<tr>
<td></td>
<td>DI Water</td>
<td></td>
<td>8.7</td>
</tr>
<tr>
<td></td>
<td><strong>Total Part A</strong></td>
<td></td>
<td>957.3</td>
</tr>
</tbody>
</table>

**High Speed Disperse to a Texture of 4-5 Hegman, reduce speed and add.**

<table>
<thead>
<tr>
<th>Material</th>
<th>Supplier</th>
<th>Pounds</th>
<th>Gallons</th>
</tr>
</thead>
<tbody>
<tr>
<td>DI Water</td>
<td></td>
<td>53.7</td>
<td>6.45</td>
</tr>
<tr>
<td><strong>Total Part B</strong></td>
<td></td>
<td>234.7</td>
<td>20.00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Total Part A &amp; B</strong></th>
<th>Pounds</th>
<th>Gallons</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1,192.0</td>
<td>100.00</td>
</tr>
</tbody>
</table>

**Mixing Instructions**

<table>
<thead>
<tr>
<th>Material</th>
<th>Pounds</th>
<th>Gallons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part A</td>
<td>957.3</td>
<td>80.00</td>
</tr>
<tr>
<td>Part B</td>
<td>234.7</td>
<td>20.00</td>
</tr>
</tbody>
</table>

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### Part A + B

<table>
<thead>
<tr>
<th>Resin Composition</th>
<th>Units</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part A</td>
<td>% solids</td>
<td>88.0</td>
</tr>
<tr>
<td>Part B</td>
<td>% solids</td>
<td>12.0</td>
</tr>
<tr>
<td>Part A + B</td>
<td>% solids</td>
<td>100.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Typical Formulation Properties</th>
<th>Units</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mix Ratio, Part A: Part B</td>
<td>By volume</td>
<td>4 :1</td>
</tr>
<tr>
<td>Total weight solids</td>
<td>%</td>
<td>65.4</td>
</tr>
<tr>
<td>Total volume solids</td>
<td>%</td>
<td>49.5</td>
</tr>
<tr>
<td>Pigment volume concentration (PVC)</td>
<td>%</td>
<td>38.2</td>
</tr>
<tr>
<td>Volatile Organic Compound (VOC)</td>
<td>lb/gal</td>
<td>1.17</td>
</tr>
<tr>
<td></td>
<td>g/L</td>
<td>141</td>
</tr>
<tr>
<td>Induction Time</td>
<td>min.</td>
<td>30</td>
</tr>
</tbody>
</table>

**Viscosity @ 25°C**

| Part A | KU | 114 |
| Part B | KU | 101 |
| Part A + B | KU | 106 |

**Reduction to Spray Viscosity (By Volume 70-75 K.U.)**

| Parts A and B | parts | 12  |
| Parts Water   | parts | 1   |

### Storage

Recommendations regarding storage conditions can be obtained by visiting our web site at [www.hexion.com](http://www.hexion.com).

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