Starting Formulation

SF 6020

Highly Flexible, Impact Resistant Flooring – Grey

EPON™ Resin 815C / EPIKURE™ Curing Agent 3164

Introduction

This formulation is designed to provide a high degree of flexibility and impact resistance for a majority of interior concrete flooring applications. The superior toughness of this system is apparent by the high mechanical strengths seen in the Cured State Properties table. This system is also recommended for applications designed to protect concrete from excessive wear by steel wheeled carts, tow motors and skid tubs.

Features

- Ease of application by roller or trowel
- Good substrate wetting characteristics
- Good wear resistance
- Minimal sweat-out and blush when exposed to high humidity
- Very good profile of mechanical properties

Formula

<table>
<thead>
<tr>
<th>Material</th>
<th>Supplier</th>
<th>Parts by Weight</th>
<th>Part by Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPON Resin 815C</td>
<td>Hexion</td>
<td>100.0</td>
<td>10.53</td>
</tr>
<tr>
<td>Colorant, White</td>
<td>Plasticolors Inc. Colorants</td>
<td>14.0</td>
<td>1.2</td>
</tr>
<tr>
<td>Colorant, Black</td>
<td>Plasticolors Inc. Colorants</td>
<td>4.0</td>
<td>1.4</td>
</tr>
<tr>
<td>EPIKURE Curing Agent 3164</td>
<td>Hexion</td>
<td>115.0</td>
<td>14.11</td>
</tr>
<tr>
<td>EPIKURE Curing Agent 3253</td>
<td>Hexion</td>
<td>3.0</td>
<td>0.37</td>
</tr>
</tbody>
</table>

Compounding

Mix the resin and converter portions and blend to a homogeneous state with proper agitation equipment. Avoid entrainment of excessive air into the blend, but ensure thorough mixing by agitation at low or moderate speeds for 3 to 5 minutes. There is no required induction time for this formulation. Due to its limited pot life, this system should be applied immediately after mixing.

The substrate to be coated must be free of dust, dirt, oils, fats, greases or membrane coating paints. Old concrete substrates can be cleaned by either sandblasting or scarification to remove surface contaminants. The laitance on the new concrete can be removed by a muriatic acid etch followed by thoroughly flushing with water, then scrubbing and drying.

Coverage rates depend on the application technique, substrate porosity and intended application, but for most applications 10 to 15 mils (215 to 110 square feet/gallon) is typical. Film builds at the lower end of the range are for sealing applications and higher film thickness are for glaze and finish coat applications. Cure for 24 hours at normal room temperature before opening to light traffic; a 3-to-4-day cure period should precede exposure to heavy traffic.

Typical Handling

<table>
<thead>
<tr>
<th>Properties</th>
<th>Units</th>
<th>Value</th>
</tr>
</thead>
</table>

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Viscosity at 25°C, system  cP  4,225
Gel time, 100 grams at 25°C  min.  85
Combining ratio, Resin/Converter  By weight  1:1
                By volume  0.9:1

Table 2 / Cured State Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Units</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tensile strength</td>
<td>psi</td>
<td>1,237</td>
</tr>
<tr>
<td>Tensile modulus</td>
<td>psi</td>
<td>1,288</td>
</tr>
<tr>
<td>Tensile elongation</td>
<td>%</td>
<td>230</td>
</tr>
<tr>
<td>Taber abrasion 2</td>
<td>mg loss/1000 cycles</td>
<td>25</td>
</tr>
<tr>
<td>Hardness, 3 days</td>
<td>Shore D</td>
<td>51</td>
</tr>
<tr>
<td>Tear strength</td>
<td>lbs/in</td>
<td>454</td>
</tr>
<tr>
<td>Izod impact, notch</td>
<td>ft.-lb/in</td>
<td>13.5</td>
</tr>
</tbody>
</table>

1 Properties determined on a 1/8" thick casting cured 16 hrs at 25 °C plus 2 hrs at 100 °C

2 Determined by 1,000 cycles.

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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