**SPIKEFAST® ES-50 RM / RM II**

**Wood Tie-Plugging Material**

**DESCRIPTION**
SPIKEFAST® ES-50-RM is specifically designed to remediate wood ties. This non-foaming, 100% solid polyurethane is specifically designed to efficiently anchor spikes with comparable strength to that of un-spiked hardwood ties. SPIKEFAST® ES-50-RM is dispensed from equipment specifically engineered for efficient metering/mixing, pressure and temperature control, and operation under wide range of outdoor conditions.

**WHERE TO USE**
- Wood crossties spike holes – re-spike filled holes
- Tie remediation – bonds tightly to wood & seals out water
- Tie defects – penetrates cracks, voids, crevices

**FEATURES AND BENEFITS**
- **Quick Cure Time** – high production rates
- **Dynamic Rail Roll-Over** – equal to hardwood, 2X wood plugs
- **Lateral Resistance** – 20% greater than hardwood ties
- **Easy to Apply** – minimal maintenance and clean up

**PACKAGING**
- 200 gallons (758 L), 50 gallons (190 L)  
- 5 gallons (19 L), 15 oz. Cartridge (450 ml)

**COLOR**
- Yellow

**YIELD**
- 150 spike holes (0.63 in. x 0.63 in. x 4 in.) per gallon.
- 38 spike holes (1.6 cm x 1.6 cm x 10.2 cm) per liter.

**SHELF LIFE**
- 3 months when properly stored.

**STORAGE**
- Store in original container and sealed until ready for use.
- Reseal used containers and store in an upright position.

**TECHNICAL INFORMATION**

**Typical Properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC, lbs/gal (g/L), ASTM D 2389</td>
<td>0</td>
</tr>
<tr>
<td>Viscosity, cps, ASTM D 4878, 77°F (25°C), Iso / Resin</td>
<td>200 / 4700 (RM)  200 / 2400 (RM II)</td>
</tr>
<tr>
<td>Hardness, Shore D, ASTM D 2240</td>
<td>80</td>
</tr>
<tr>
<td>Set time, sec, 77°F (25°C)</td>
<td>32 / 50—Cartridges  (Temperature dependent)</td>
</tr>
<tr>
<td>Service temperature, ° F (° C)</td>
<td>-40 to 212 (-40 to 100)</td>
</tr>
</tbody>
</table>

**Process Parameters**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ratio by volume, Resin to Iso</td>
<td>2 to 1</td>
</tr>
<tr>
<td>Meter equipment</td>
<td>Plural component</td>
</tr>
<tr>
<td>Static mixer</td>
<td>13-32</td>
</tr>
<tr>
<td>Equipment pressure, psi (MPa)</td>
<td>400 - 600 (2.3 – 4.1)</td>
</tr>
<tr>
<td>Equipment temperature, ° F (° C)</td>
<td>70 to 125 (21 to 52)</td>
</tr>
<tr>
<td>Recommended application volume, in³ (cm³)</td>
<td>2 in³ (32.5 cm³)</td>
</tr>
</tbody>
</table>
APPLICATION

Use Willamette Valley Company’s metering equipment which is specifically engineered for processing SPIKEFAST® ES-50-RM to generate the proper mix ratio, pressure, and temperature.

SPIKEFAST® ES-50-RM is supplied in a ready-to-use form that requires proper mixing and dispensing. Care should be taken that SPIKEFAST® ES-50-RM is stored properly, does not become contaminated with foreign matter, and is applied according to WVCO recommendations.

Proper application is the responsibility of the user. Field visits by WVCO Representatives are for the purpose of making technical recommendations and equipment service only, and not for supervising or providing quality control.

Contact a Willamette Valley Company Representative for more information on product and equipment instructions, recommendations, and full-service warranty.

HEALTH AND SAFETY

Willamette Valley Company recommends reading and becoming familiar with the Material Safety Data Sheet before using this product.