FLEXISECURIT ER-SO

PRODUCT DESCRIPTION
Flexisecurit ER-SO is a three-component, IMO-approved, self-priming rigid epoxy underlayment with high resistance to mechanical stress. It is mainly used in interior spaces that are subject to heavy duty use. Flexisecurit ER-SO can be applied up to 7 mm (1/4 in.), and is comprised of an epoxy resin base, amine hardener, and spherical quartz filler.

PACKAGING
Flexisecurit ER-SO is packaged in units for easy handling. Each unit consists of:

(1) 5 gallon pail of Resin
(1) 1 gallon can in a carton of Amine
(½) bag of 46-grit Spherical Quartz

COVERAGE
At a nominal 7 mm (1/4 in.) thickness, each unit of Flexisecurit ER-SO will cover approximately 2.2 m² (23 ft²). This amounts to an application rate of 14.5 kg/m².

STORAGE CONDITIONS
Store all components of Flexisecurit ER-SO between 5 and 30°C (41 and 86°F) in a dry area. Avoid excessive heat and direct sunlight. Do not freeze. The shelf lives of the Resin and Amine are 3 years and 2 years, respectively, in the original, unopened container.

COLOR
Flexisecurit ER-SO is available in six standard colors – Beige, Blue Cordova, Charcoal, Green, Grey and Red Mocarbo. Custom colors are also available upon request. For more information on color options, contact an API USA representative.

SUBSTRATE
Flexisecurit ER-SO is suitable for application over properly prepared steel, aluminum, concrete or wood surfaces. It is not recommended for use over asphalt, mastic, gypsum-based products, brick or painted surfaces. These must first be removed by mechanical means to expose the substrate prior to overlayment.

SUBSTRATE PREPARATION
Proper mechanical preparation is critical to ensure an adequate bond and system performance. The substrate must be clean, dry and free of contamination before material application. When applying over aluminum, stainless steel, or galvanized substrates, the use of Primer 5 is required immediately after mechanical preparation. Questions regarding substrate preparation should be directed to an API USA representative.

PHYSICAL CHARACTERISTICS

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Hardness</td>
<td>55 (ASTM D-2240, Shore D)</td>
</tr>
<tr>
<td>Density</td>
<td>2067.1 kg/m³</td>
</tr>
<tr>
<td>Mix Ratio by Weight</td>
<td>11.1/100/50</td>
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<tr>
<td>Mix Ratio by Volume</td>
<td>3.0/1/0.5</td>
</tr>
<tr>
<td>VOC Content</td>
<td>131 g/L (ASTM D-2369, Method E)</td>
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<tr>
<td>Percent Solids</td>
<td>93%</td>
</tr>
<tr>
<td>Flash Point</td>
<td>94°C (&gt;201°F)</td>
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<tr>
<td>Pot Life</td>
<td>60 min @23°C/74°F</td>
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<tr>
<td>Recoat Time</td>
<td>48 hours</td>
</tr>
<tr>
<td>Cure Rate</td>
<td>8 hours for initial set</td>
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<tr>
<td></td>
<td>24 hours for light traffic</td>
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</tbody>
</table>

Note: The above physical properties were measured in accordance with the referenced standards. Samples of the actual floor system, including binder and filler, were used as test specimens. All sample preparation and testing is conducted in a laboratory environment. Values obtained on field applied materials may vary, and certain test methods can only be conducted on lab-made test coupons.

PRIMING/UNDERLAYERMENT
Flexisecurit ER-SO is a self-priming material, so the use of Primer per Metalli is not required prior to Flexisecurit ER-SO application.

MIXING FLEXISECURIT ER-SO
Proper mixing is critical for the products to exhibit the proper application, cure and physical properties.

1. If the base shows signs of separation, pre-mix with a heavy-duty, slow-speed drill (400-600 rpm) with a Jiffy Mixer until homogenous.
2. Pour the hardener into the pail containing the base, scraping any residual hardener from the bottom and sides of the can. Mix for 60 seconds.
3. Pour the contents of the pail into a clean container, add the filler, and mix for an additional 60 seconds.
APPLYING FLEXISECURIT ER-SO

1. Pour the contents of the pail into a bead on the floor where it can be applied.
   
   Note: It is important to pour subsequent beads of material into existing, fresh Flexisecurit ER-SO already applied. This will eliminate potential batch lines in the finished product.

2. Apply the material to the substrate using a 13 mm x 13 mm (1/2 in. x 1/2 in.) notched trowel. To achieve the proper, uniform thickness, hold the trowel at approximately 45°, floating the notches over the surface of the substrate.
   
   Note: It is critical to apply the Flexisecurit ER-SO at 2.2 m² (23 ft²) per unit. This will ensure the proper thickness.

3. After the material is trowelled, a spike roller is used to roll the material. The use of a spike roller allows air to escape and levels the surface of the material. Flexisecurit ER should be spike rolled a minimum of six times (forward and back) to eliminate any entrained air.

RECOMMENDATIONS

- Apply only to clean, sound, dry and properly prepared substrates.
- Application and curing times are dependent upon ambient and substrate conditions.
- Minimum ambient and substrate temperatures are 5°C (41°F) at the time of application. However, it is not advisable to apply the material if the temperature is below 10°C (50°F).
- Maximum ambient and substrate temperatures are 35°C (95°F) at the time of application.
- Substrate temperature should be greater than 3°C (5°F) above the dew point.
- Do not apply material if the relative humidity exceeds 85%.
- Dispose of waste materials in accordance with government regulations.
- Clean all equipment immediately after use with scouring pads and acetone. Hardened material will require mechanical means for removal.

PRECAUTIONS

- The use of safety glasses and impervious gloves is required during application.
- Avoid contact with all liquids as they may cause skin and/or eye irritation. In case of contact, flush the area with copious amounts of water for at least 15 minutes and seek medical attention.
- Wash hands thoroughly with soap and warm water after use.
- Use only with adequate ventilation.