

# Technical Data Sheet

## KEMPEROL® 1K-LF

<b>Product Description</b>	KEMPEROL® 1K-LF is a single-component, UV-stable, “low-odor” solvent free, Low VOC, high performance cold liquid-applied resin for patching, repairs and flashings of roofing and waterproofing systems. KEMPEROL® 1K-LF reinforced membrane system was designed for easy application under difficult circumstances such as application to damp surfaces, or where alkali resistance is required.
<b>Composition &amp; Materials</b>	A monolithic membrane is created in the field by applying the KEMPEROL® 1K-LF single-component, cold liquid-applied silane based moisture-cure resin with KEMPEROL® premium polyester reinforcing fleece. Membrane must be applied using premium fleece (available with a 13 inch nominal width).
<b>Use</b>	KEMPEROL® 1K-LF membrane is suitable for flashing and repair in both interior and exterior applications including roofs, plazas, planters, foundations, mechanical rooms and other waterproofing applications.
<b>Limitations</b>	<p>KEMPEROL® 1K-LF may be applied when the ambient temperature is 41 °F (5 °C) and rising, and the substrate temperature is a minimum of 5 degrees above the dew point. The maximum application temperature is approximately 104 °F (40 °C).</p> <p>Note: Viscosity increases with falling temperature.</p>
<b>Yield</b>	<p>KEMPEROL® Premium 165 Fleece: 25 ft<sup>2</sup> (2.32 m<sup>2</sup>) per 6.5 kg work pack</p> <p><i>Note: All yields are approximate and may vary depending upon smoothness and absorbency of substrate.</i></p>
<b>Storage</b>	<p>Always store in cool and dry location. Do not store in direct sunlight or in temperatures below 41 °F (5 °C) or above 80 °F (27 °C). Approximate shelf life 12 months with proper storage.</p> <p>For best use, 24 hours before application, the material is to be acclimated at temperatures between 65-70 °F (18-21 °C).</p>
<b>Precautions</b>	<b>Review Safety Data Sheets before handling, available online at: <a href="http://www.kempersystem.net">www.kempersystem.net</a></b>
<b>Surface Preparation</b>	All surfaces must be free from gross irregularities, loose, unsound or foreign material, such as dirt, ice, snow, water, grease, oil, release agents, lacquers, or any other condition that would be detrimental to the adhesion of the membrane. This requires careful cleaning and preparation of existing surfaces. Existing membranes should first be cleaned with a solvent cleaner, such as KEMPERTEC® Klean or MEK, and abraded with a 60 grit sand paper. Concrete and metal surfaces should be thoroughly cleaned and abraded with a hand grinder.
<b>Priming</b>	After surface preparation, the following substrates do not require priming; Existing cold fluid-applied membranes, Modified Bitumen membranes, PVC single-ply membranes, concrete, brick, CMU, wood and metal. For all other surfaces please refer to the Kemper System Substrate Primer Selection Table, found in the Technical Manual.

Sustainability Information	
Bio-Based Material	0%
Recycled content % (post / pre)	0 / 0
Manufacture location	Germany

Note: Prior to opening the containers of KEMPEROL® 1K-LF Resin, wear appropriate safety glasses and protect hands and wrists by wearing gauntlet-type neoprene gloves.

Mix resin with a spiral agitator until the liquid is a uniform color.

**Step 1:** After the Resin is mixed, using a KEMPEROL® roller nap or brush apply 1/2 of the resin liberally and evenly onto the surface in even stroke. Covering one working area at a time.

**Step 2:** Roll the KEMPEROL® Premium 165 Fleece directly into the Resin, making sure the perforations are facing upward (natural unrolling procedure), avoiding folds and wrinkles. Use the roller or brush to work the resin into the fleece, saturating from the bottom up. The appearance of the fleece should be saturated with no white spots. White spots are indications of unsaturated fleece or the lack of adhesion. It is important to correct these areas before proceeding.

**Step 3:** Apply the remaining 1/2 of the resin to the top of fleece to complete the saturation. Rolling the final coat of resin onto the fleece should result in a glossy appearance. The fleece can only hold so much resin and all excess should be rolled forward to the unsaturated portion of the fleece. The correct amount of resin will completely saturate the fleece with no dry fleece visible. Work wet membrane to avoid any blisters, openings, or lifting at corners, junctions, and transitions. Always assure full resin saturation of fleece.

NOTE: On flashing applications use the 13.8" fleece with 6" of the reinforcement fleece on the horizontal surface.

Membrane Properties		
Physical Property	Test Method	Values
Colors		Anthracite / Light Gray
Physical State		Cures to Solid
SRI Anthracite Light Gray		Initial / 3 Year Aged 5.5 / - 58 / -
Thickness (Pr. 165 Fleece)		90 mils
VOC Content		3 g/l
Peak Load @ 73 F, avg.	D5147	>60lbf/in
Elongation	D5147	>40%
Tearing Strength	D5147	82 lbf
Puncture Resistance	D5602	-
Dimensional Stability	D1204	0.00%
Water Absorption (48 Hours)	D570	1.4%
Impact Resistance	D2240	Shore A:60 ±5
Water Vapor Transmission	E96	-
Crack Spanning		2 mm / 0.08 inch
Short Term Temperature Resistance		194 °F (90 °C)
Usage Time*		90 minutes
Water Resistant After		2 hours
Solid To Walk On After*		16 hours
Can Be Re-Coated After*		24 hours
Apply Overburden After		16 hours
Completely Hardened*		16 hours

\* values obtained at 73°F, 50% relative humidity, may vary depending upon air flow, humidity and temperature.

### Mixing of Resin

### Application

### Surfacing

KEMPEROL® 1K-LF membrane may be recoated after a minimum of 24 hours. Ensure the membrane is fully cured before recoating.

### Disposal

Cured KEMPEROL® 1K-LF resin may be disposed of in standard landfills. This is accomplished by thoroughly mixing the product with 1/4 cup (60ml) of water and waiting until fully cured. Uncured KEMPEROL® 1K-LF resin must be handled in accordance with local, state and federal regulations. Do not throw uncured resin away.

### Ordering Information

KEMPEROL® 1K-LF - **Anthracite** work pack

Item#: Size:  
105-41-070 6.5kg 1.03 US GAL (5L)

KEMPEROL® 1K-LF - **Light Gray** work pack

Item#: Size:  
105-42-070 6.5kg 1.03 US GAL (5L)

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