

# Technical Data Sheet

## KEMPEROL® 022

Pack includes:

**Component A: Gray Formulation, Component B: Amber Formulation**



### Product Description

**KEMPEROL® 022** is a two-component, high performance, cold-liquid applied, solvent-free, low VOC, crack-spanning resin for waterproofing beneath tile and stone applications.

### Composition & Materials

A seamless and monolithic crack isolation membrane is created in the field by combining the KEMPEROL® 022, a solvent free, cold liquid-applied, 2-part polyurethane / epoxy hybrid resin with the KEMPEROL® 500 fleece, a non-woven polyester reinforcement.

### Use

KEMPEROL® 022 fully reinforced membrane is suitable for interior waterproofing applications for a variety of substrates beneath tile and stone, shower pans, bathrooms, water features, kitchens, mechanical rooms and other wet room applications. TCNA tested, exceeds ANSI A118.10 and A118.12 specification standards.

Listed with **IAPMO** (certificate # 10470) for shower pan liners.

### Limitations

KEMPEROL® 022 membrane is not intended for exterior applications and UV exposure. The membrane must be covered up with a thin-set or a setting bed and tile within eight (8) days of application.

KEMPEROL® 022 may be applied when the ambient temperature is 50° F (10° C) and rising, and the substrate temperature is a minimum of 5° F (-15° C) degrees above the dew point. The maximum application temperature is approximately 95° F (35° C).

### Yield

KEMPEROL® 500 fleece: 30 s.f. (2.8 kg/m<sup>2</sup>) per 6 kg work pack

*Note: All yields are approximate and may vary depending upon smoothness and absorbency of substrate.*

### Storage

Always store in cool and dry location. Do not store in direct sunlight or in temperatures below 50° F (10° C) or above 80° F (27° C). Approximate shelf life 12 months with proper storage.

For best use, 24 hours before application, the material is to be acclimated at temperatures between 65-70° F (18-21° C).

### Precautions

**Review Safety Data Sheets before handling, available online at [www.kempersystem.net](http://www.kempersystem.net).**

### Surface Preparation

All surfaces must be free from gross irregularities, loose, unsound or foreign material such as dirt, water, grease, oil, release agents, lacquers, or any other condition that would be detrimental to adhesion of the primer and membrane. This requires careful preparation of existing horizontal and vertical substrates; cracks are filled, expansion joints are prepared, flashings are removed or modified, and termination points are determined. Substrates and penetrations are prepared to rigorous industry standards, and may require scarifying, sandblasting or grinding in some cases to achieve a suitable substrate.

Ensure that new cement board and plywood has had an opportunity to dry before applying Resin. All cover board and plywood joints, and pipe penetrations should be treated with KEMPERTEC® Joint Sealant and stripped with the 6" wide KEMPEROL® 500 fleece and KEMPEROL® 022 resin.

## Mixing of Resin

## Application

## Disposal

## Ordering Information

Sustainability Information	
Bio-Based Material	0%
Recycled content % (post / pre)	0 / 0
Manufacture location	Buffalo, NY, USA

*Note: Prior to opening the containers of KEMPEROL® 022 resin wear appropriate safety glasses and protect hands and wrists by wearing gloves.*

**Step 1:** Premix resin Component A thoroughly with a spiral agitator.

**Step 2:** Pour resin Component B into Component A and mix the components for approximately 2 minutes with a clean spiral agitator on low speed without creating any bubbles or streaks. The resin solution should be a uniform color, with no light or dark streaks present.

*NOTE: DO NOT break down units into smaller quantities - mix the entire work pack.*

**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.

**Step 2:** Roll the KEMPEROL® 500 fleece directly into the Resin, avoiding folds and wrinkles. Use the roller or brush to work the resin into the fleece, saturating from the bottom up. White spots are indications of unsaturated fleece or lack of adhesion. It is important to correct these areas before proceeding.

**Step 3:** Add the remaining 1/2 of the resin to the top of the fleece and finish the fleece's saturation. Roll this final coating into the fleece, which will result in a glossy appearance. Ensure a two (2) inch (5cm) overlap between rolls of fleece. White spots are indications of unsaturated fleece or lack of adhesion. It is important to correct these faults before the resin cures.

**Step 4:** While the resin is still wet broadcast KEMPEROL® Surfacing Sand (#0 / 18 mm) on both horizontal and vertical surfaces at the approximate rate of 30 lbs./100 ft<sup>2</sup> (1.5 kg/m<sup>2</sup>).

NOTE: KEMPEROL® 022 membrane does not require a protective alkalinity barrier.

**Step 5:** Once the KEMPEROL® 022 membrane has cured the tile adhesive application may begin. Please follow the tile adhesive manufacturer's application guidelines.

Cured KEMPEROL® 022 resin may be disposed of in standard landfills. This is accomplished by thoroughly mixing all components. Uncured KEMPEROL® 022 resin is considered a hazardous material and must be handled as such, in accordance with local, state and federal regulations. Do not throw uncured resin away.

KEMPEROL® 022 work pack

Item#: 601-78-055

Size: 1.14 GAL (4.32L) - 6 kg work pack

500 Fleece Reinforcement

Item #:

112-115-01  
112-115-02  
112-115-03

41.3" Wide  
27.6" Wide  
6" Wide

Membrane Properties		
Physical Property	Test Method	Values
Color		Stone Gray
Physical State		Cures To Solid
Nominal Thickness		40 mils
Mold Resistance	A118.10	Pass
Seam Strength	D751-06	113 lbs / 2" width
Breaking Strength	D751-06	445 psi
Dimensional Stability	A118.10	Pass
Waterproofness	A118.10	Pass
Shear Strength (4 Weeks)	A118.10	106 psi
Shear Strength (100 Day Water Immersion)	A118.10	60 psi
VOC Content CDPH Standard TVOC Concentration	Method V1.2	35 g/l Pass ≤ 0.5 mg/m <sup>3</sup>
Hardness	C661	>40
Elongation	D751-06	40%
System Performance	C627	14 Cycles - Extra Heavy Rating
Anti-Fracture crack spanning		1/16"
Water Vapor Transmission	E96	0.1 Perms
Usage Time*		25 mins
Moisture Resistant*		1 hour
Water/EFVM Test*		16 hours
Apply Thinset*		16 hours
Temperature Resistance		158 °F (70°C)
* values obtained at 73°F, 50% relative humidity, may vary depending upon air flow, humidity and temperature.		