

KEMPEROL 2K-PUR MEMBRANE SINGLE-SOURCE INSULATED ROOFING ASSEMBLY

BASIC USE

The KEMPEROL® 2K-PUR Single-Source Insulated roofing assembly consists of high-quality, fully compatible materials that have been specifically selected to provide exceptional performance as an integrated system.

The assembly is based upon the Kemperol 2K-PUR roofing membrane, the industry-standard membrane for use in roofing applications where absence of odor during application is of paramount importance.

This single-source assembly provides the Building Owner and Specifier with the assurance that their insulated roof membrane assembly is fully approved and warranted by Kemper System, Inc.

PRODUCT DESCRIPTION

The Kemperol 2K-PUR roofing system itself is a fully reinforced, cold fluid-applied membrane system.

The Kemperol 2K-PUR system is based primarily upon advanced polyurethane, epoxy, and acrylic technology. Depending on the substrate, the primer component of the system is either a two-component epoxy or urethane, or single-component acrylic. The membrane and flashing resin components of the system are two-component urethane. Depending on application, a two-component epoxy surfacing is applied as an optional alkalinity resistant surfacing. A decorative urethane finish can also be applied as either a smooth color coating or a textured aggregate surfacing.

The Kemperol 2K-PUR system includes the following components:

- Mineral-Surfaced Vapor Retarder/Temporary Membrane (Optional)
- KSI-Approved Insulation
- KSI-Approved Cover Board (Optional)
- Kempertec EP, D, or BSF-R Primer
- Kemperol 2K-PUR Resin with Kemperol 165 Polyester Fleece Reinforcement
- Kempertec EP Alkalinity Surfacing (Optional)
- Kemperdur DEKO 2KS-FR Finish, ECO Finish, or BSF-R Finish (Optional)

The Kemperol 2K-PUR membrane system components average under 10 g/l VOC and are not solvent-based.

The single-source assembly also includes, as appropriate for the specific application, the following KSI-APPROVED insulation and cover board components installed beneath the 2K-PUR membrane system:

- ASTM C1289 Type 2 Class 2 Isocyanurate Foam Insulation with Coated Glass Facers
- High Density Coated Glass Faced Iso Cover Board
- Fiberglass-Reinforced Cementitious Cover Board
- FM-Approved Low-Rise Urethane Foam Adhesive
- FM-Approved Mechanical Fasteners and Stress Plates

TECHNICAL ADVANTAGE

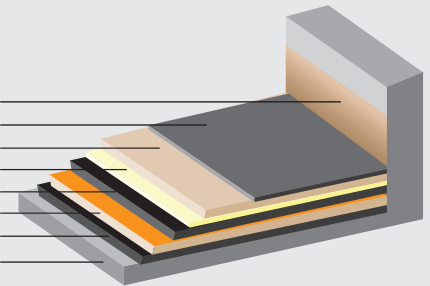
The Kemperol 2K-PUR odor-free system itself is suitable for exterior applications where absence of odor during application is critical.

The Kemperol 2K-PUR system is exceptionally durable, reliable, and long-lasting, and has a combination of physical properties that makes it ideal for an exceptionally wide range of applications.

TYPICAL ASSEMBLIES

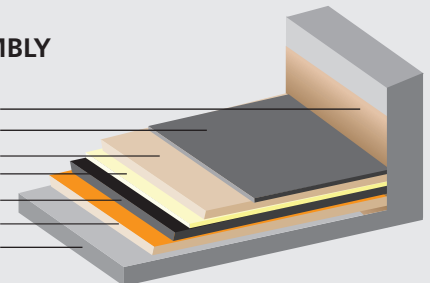
STANDARD ROOFING ASSEMBLY

- KEMPEROL 2K-PUR FLASHING
- KEMPERDUR ECO FINISH (OPTIONAL)
- KEMPEROL 2K-PUR MEMBRANE
- KEMPERTEC PRIMER APPROVED FOR SUBSTRATE
- APPROVED HIGH-DENSITY ISOCYANURATE COVER BOARD
- APPROVED ISOCYANURATE FOAM INSULATION
- MINERAL-SURFACED VAPOR RETARDER (OPTIONAL)
- APPROVED DECK



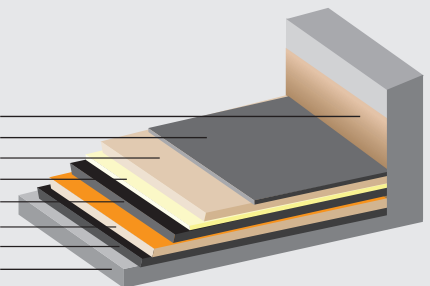
STANDARD RECOVER ROOFING ASSEMBLY

- KEMPEROL 2K-PUR FLASHING
- KEMPERDUR ECO FINISH (OPTIONAL)
- KEMPEROL 2K-PUR MEMBRANE
- KEMPERTEC PRIMER APPROVED FOR SUBSTRATE
- APPROVED HIGH-DENSITY ISOCYANURATE COVER BOARD
- APPROVED ISOCYANURATE FOAM INSULATION
- EXISTING ROOF ASSEMBLY



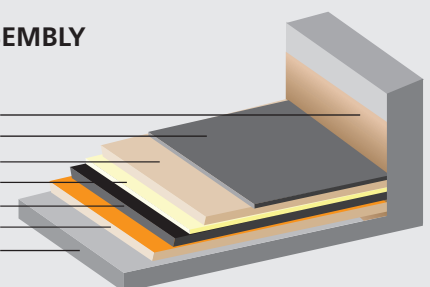
HIGH TRAFFIC ROOFING ASSEMBLY

- KEMPEROL 2K-PUR FLASHING
- KEMPERDUR ECO FINISH (OPTIONAL)
- KEMPEROL 2K-PUR MEMBRANE
- KEMPERTEC PRIMER APPROVED FOR SUBSTRATE
- APPROVED CEMENTITIOUS COVER BOARD
- APPROVED ISOCYANURATE FOAM INSULATION
- MINERAL-SURFACED VAPOR RETARDER (OPTIONAL)
- APPROVED DECK



HIGH-TRAFFIC RECOVER ROOFING ASSEMBLY

- KEMPEROL 2K-PUR FLASHING
- KEMPERDUR ECO FINISH (OPTIONAL)
- KEMPEROL 2K-PUR MEMBRANE
- KEMPERTEC PRIMER APPROVED FOR SUBSTRATE
- APPROVED CEMENTITIOUS COVER BOARD
- APPROVED ISOCYANURATE FOAM INSULATION
- EXISTING ROOF ASSEMBLY



Unlike many other roofing systems, the Kemperol 2K-PUR system incorporates flashings that are made of the same materials as the roofing membrane itself, essentially creating a seamless, self-terminating monolithic membrane that readily adapts to the contours of the substrate.

The Kemperol 2K-PUR system bonds directly to the substrate, eliminating the possibility of water moving laterally beneath the roofing membrane. The system eliminates seams, pitch pockets, metal sleeves and termination bars, which are the locations where most leakage occurs.

Kemperol 2K-PUR bonds tenaciously to all common construction materials including concrete, CMU block, brick, wood, stainless steel, copper, galvanized steel, aluminum, cast iron, glass, fiberglass, cement board, treated gypsum board, and rigid PVC. The Kemperol 2K-PUR system can be used to transition from one material to another without need of intermediate separation flashings.

Kemperol 2K-PUR is resistant to UV exposure without need of a separate protection layer. Kemperol 2K-PUR is root and rot resistant, and resists degradation by most oils, grease, and other common chemical substances. In addition, Kemperol 2K-PUR is unaffected by standing water and ice, and can be left submerged indefinitely.

In addition, KSI-APPROVED components have been specifically selected to provide exceptional performance within the insulated assembly so that the entire assembly will be virtually problem-free for the life of the assembly.

Unlike conventional insulated assemblies, KSI-APPROVED insulation and cover boards provide extreme resistance to moisture and high compressive strength to limit system deterioration and damage from vapor drive, water infiltration, and rooftop traffic.

INSTALLATION OUTLINE

REFER TO THE KEMPEROL TECHNICAL MANUAL FOR COMPLETE INSTALLATION INFORMATION.

- **Substrate Preparation:** Ensure that the substrate is clean and dry. Remove all contaminants and existing coatings from all surfaces to allow proper adhesion of the Kemperol system. Roughen all metal surfaces by grinding.
- **Substrate Repair:** Route out all moving cracks and fill with urethane sealant. Non-moving cracks will be filled during priming application.
- **Temporary Roof / Vapor Retarder:** As required, install a layer of mineral-surfaced base sheet to the structural deck.
- **Insulation/Cover Board:** Install approved isocyanurate foam insulation/cover board to the structural deck, either with urethane foam adhesive or mechanical fasteners.
- **Primer:** Apply Kempertec EP epoxy-based primer to concrete and masonry substrates. Apply Kempertec D urethane-based primer to metal and wood substrates. Apply Kempertec BSF-R acrylic-based primer to coated-glass faced isocyanurate insulation. Allow to fully cure.
- **Membrane:** Install Kemperol 2K-PUR membrane and flashing system to primed surfaces. All moving cracks and joints between plywood, insulation and cover boards are to be reinforced with an initial strip of Kemperol 2K-PUR membrane prior to application of the full system.
- **Surfacing:** For all applications where concrete or other cementitious overburden is to be installed, apply Kempertec EP primer over the entire area to be covered, and broadcast kiln-dried sand into the wet primer.
- **Coating:** For applications where a colored coating or aggregated surfacing is desired, apply Kemperdur DEKO 2KS-FR, Kemperdur ECO, or Kemperdur BSF-R Finish.

All Kemper System, Inc. products are intended for PROFESSIONAL USE ONLY.

WARRANTY INFORMATION

Kemper System, Inc. warrants its products to be free of defects, and will provide replacement materials at no charge for any product proven to be defective.

Kemper System, Inc. provides technical installation training to qualified contractors, who are then eligible to become Kemper System Authorized Applicators.

In addition, for qualified installations, Kemper System Authorized Applicators are eligible to apply for watertightness warranties issued by Kemper System that provide for repair at no charge to address covered leaking conditions due to defects in products or installation workmanship. Standard warranty duration is twenty (20) years.

TECHNICAL AND SALES SUPPORT

Kemper System, Inc. sales and technical representatives are available to support the proper specification and application of Kemper System, Inc. products to ensure a long and successful performance life.

Services provided include: on-site evaluations; specification assistance; jobstart, interim and final completion inspections.

For further assistance call our Service Center at 1-800-541-5455, or visit our website at www.kempersystem.net.

MANUFACTURER

Kemper System, Inc.
1 Reuten Drive
Closter, NJ 07624
Phone: 800-541-5455
Fax: 201-767-4304
Website: www.kempersystem.net



All information and statements contained herein are believed to be accurate, but Kemper System, Inc., its agents and/or affiliates make no warranty with respect thereto, including but not limited to any results to be obtained or the infringement of any proprietary right. Improper and unauthorized use or application of such information or statements or the material or systems described herein is at user's sole discretion and risk, and consequently user acknowledges that Kemper System, Inc. shall bear no responsibility or liability for same. Nothing herein shall be construed as a license of or recommendation for use which infringes any proprietary right. All sales are subject to Kemper System, Inc.'s Standard Terms and Conditions of Sale, including but not limited to its Limited Warranty.

