KOMMAND KOTE TECHNICAL DATA SHEET

DESCRIPTION

SEALMARK KOMMAND KOTE is an Industrial strength Military-Grade, high-performance, acrylic resin-based liquid applied roof barrier. Composed of a unique blend of polymers, industrial-grade resins, Thermosphere particles, and a proprietary mixture of algaecides and biocides. Provides a long-lasting, weatherproof roof barrier for military and industrial structures. Incorporates fine micro-sized particles that yields superior adhesion with a robust, flexible coated surface.

- **Unmatched Durability:** The unique formulation ensures a tenacious bond to all properly prepared surfaces and exceptional resistance to UV degradation, chipping, peeling, and surface delamination.
- **High Solids Content**: 60% (± 2%) by volume, providing a robust, flexible coating.
- **Extreme Weather Protection**: Defies harsh conditions, safeguarding various substrates.
- **Versatile Application**: This flexible, hydrophobic coating can be applied to cured concrete, metal, aluminum, wood, EIFS (existing or new), stucco, TPO, masonry, CIP, cement board, aged vinyl siding, and previously painted stable substrates.
- **Crack Bridging and Waterproofing:** Effectively fills and conceals hairline cracks and provides waterproofing and expandability (400% elongation) for masonry substrates and control/expansion joints.

USES

Creates a monolithic and seamless membrane system, **SEALMARK KOMMAND KOTE** can be used in various scenarios with ease and effectiveness, making it a preferred choice for new and existing roof protection against severe weather conditions. The unique formulation creates a tenacious bond to properly prepared substrate surfaces and is extremely resistant to UV degradation, chipping, peeling, and surface delamination.

- **Complex Roof Designs:** The liquid membrane conforms to any shape and Ideal for roofs with numerous details and penetrations,
- **Roof Renovations:** Cost-effective for refurbishing old, degraded, and leaking roofs avoids demo of existing materials. Eliminates seams, joints, and overlaps, reducing risk of water infiltration.
- **Quick Repairs and Sealing:** Rapid cure times and excellent adhesion enables quick roof repairs from leaks. Faster and longer lasting than “Blue Tarps” provides time for Insurance adjustment decisions while protecting the building structure.
- **Freeze/Thaw:** Ideal for restoring damaged roof exposure to prolonged wind, solar radiation, rain, and thermal expansion (ICBO Spec freeze-thaw cycles).
- **Energy Efficiency:** Provides extreme solar reflectance (94.7%) and thermal emittance (.82) and reduces long-term energy consumption.

FEATURES & BENEFITS

- **Best Defense Against**: Microbial attack by repelling the growth of fungus, mold and mildew.
- **High Solar Reflectance**: Achieves 95% solar reflectance, significantly reducing heat absorption.
- **Waterproof Thermal Barrier**: Enhances energy efficiency and reduces, or eliminates, condensation build-up and subsequent corrosion under insulation. Alters the effects of Thermal gradients through pipes or substrates.
- **Durability and Flexibility**: Superior adherence and elongation maintains surface integrity, withstands subtle building movements & temperature changes, and remains bonded to the substrate.
- **Non-Toxic and Environmentally Safe**: VOC compliant meets all government standards with zero VOC content in both suspension and cured states, Water-soluble before curing.
- **Class A Fire Rating** does not support combustion (ASTM-E-108).
- **Seals Roof Penetration and Fasteners**: Exceeds ASTM D1970/section 7.9 test for fastener salability.
- **Crack Resistance**: Maintains a smooth and uniform appearance.
- **UV Protection**: Encapsulated Thermosphere Coating reduces fading and protects exterior walls against UV rays and environmental exposure, guards against surface breaks, chipping, and flakes.
- **Versatile Weather Conditions**: Suitable for commercial, industrial and residential roof applications in coastal areas, extreme environmental and weather conditions.
- **Color Matching**: 900+ color matches available through a verification system to ensure
- **Warranty**: Military-Grade performance yields assurance of quality and a 15-year limited material warranty, providing peace of mind and assurance of quality.

TECHNICAL SPECIFICATIONS

- **Solids Content:** 60% (± 2%) by volume
- **Viscosity:** 86-94 KU (Krebs Units)
- **Dry Time:** Touch dry in 2 hours, recoat in 4-6 hours
- **VOC Content:** <50 g/L, compliant with environmental regulations. Tested for VOC levels using ASTM D-3960, D-3792, D-2369, and D-1475 methods, with zero VOC detected
- **Elongation:** 400% at break, ensuring flexibility
- **Tensile Strength:** 300 psi, providing robust performance
- **Adhesion:** Superior adhesion to various substrates demonstrated by the ASTM-D-3359 Tape Cross-Hatch Method. The coating remains fully intact, with 100% adhesion, and exceeded 200 psi on concrete
- **Weather Resistance:** Proven resistance to UV, moisture, and temperature extremes
- **Chemical Resistance:** Resistant to mild acids, alkalis, and salts
- **Coverage Rate**: 100 sq ft per gallon per coat, yielding approximately 16 mil wet film thickness (minimum two coats required)
- **Application Requirements:** Two coats at the specified coverage 16 mil per coat in conjunction with Sealmark application procedures
- **Surface Considerations**: Coverage rates may decrease when applying to unsealed, unprimed, rough, or porous substrates

COMPOSITION

SEALMARK KOMMAND KOTE features a specially formulated, fortified acrylic compound designed to provide superior performance and durability. This advanced compound includes the following technical attributes:

- **High-Quality Acrylic Resins**: Utilizes premium acrylic resins to ensure excellent adhesion, flexibility, and long-lasting protection.
- **Enhanced Durability:** Fortified with thermal sphere particles and select fillers and to withstand harsh weather conditions and resist UV degradation, chipping, peeling, and surface delamination.
- **Superior Bonding:** The compound forms a tenacious bond with a variety of substrates, cured concrete, masonry, wood, metal, aluminum, EIFS, stucco, cement board, and aged vinyl siding.
- **Thermal Barrier:** Thermal sphere particles create a waterproof thermal barrier, reduces heat transfer and improves long-term energy efficiency.
- **Environmental Safety:** Water-soluble prior to curing and Non-toxic with zero VOC content that meets or exceeds all government standards.
- **Mold and Mildew Resistance:** Contains a unique blend of algaecides and biocides that reduces or prevents growth of mold and mildew
- **Crack Bridging:** fills, bridges, and conceals hairline cracks and maintains a smooth and uniform appearance.

ENVIRONMENTAL IMPACT

- **Zero to low VOC Formulation: SEALMARK KOMMAND KOTE** Zero VOCs, minimizes impact on indoor and outdoor air quality.
- **Eco-Friendly Ingredients:** Incorporates eco-friendly ingredients, reduces reliance on non-renewable resources and lowers the carbon footprint.
- **Durability and Longevity:** Enhanced durability reduces the need for frequent recoating, decreases waste generation and the environmental impact associated with disposal or recycling.
- **Energy Efficiency:** The thermal sphere particles contribute to improved energy efficiency by reducing heat transfer and lowering energy consumption for cooling and heating.

COVERAGE

For optimal results, apply **SEALMARK KOMMAND KOTE** Sloped concrete roof at a rate of 100 sq ft per gallon per coat with a wet film thickness of 16 mils. A minimum of two coats is required to ensure maximum longevity, waterproofing properties, and to qualify for the product warranty.

Important Notes:

- Coverage rates may vary dependent on surface conditions and/or porous substrates.
- Highly porous, unsealed substrates require a conditioning coat (rec. Sealmark Primer @ 200 sf/gal) for surface prep and follow on coats.
- Three coat application is required when embedding fabric reinforcement
- Coverage rates provided are estimates and should be adjusted as necessary.

WET MIL SQ FT COVERAGE RATES

One gallon volume will spread and cover approximately 1,600 sq ft of smooth surface area 1 mil thick.

To calculate the dry mil thickness of the coating you must know the coatings volume solids.

One mil is equal to 1/1000 of an inch

One (1) gallon volume will cover the following sq ft area at the wet mil thickness.

1 mil	1600	sq ft	35 mil	45.7	sq ft
2 mil	800	sq ft	40 mil	40	sq ft
3 mil	533.3	sq ft	45 mil	35.5	sq ft
4 mil	400	sq ft	50 mil	32	sq ft
5 mil	320	sq ft	55 mil	29	sq ft
6 mil	266.6	sq ft	60 mil	24.6	sq ft
7 mil	228.5	sq ft	70 mil	22.8	sq ft
8 mil	200	sq ft	75 mil	21.3	sq ft
9 mil	177.8	sq ft	80 mil	20	sq ft
10 mil	160	sq ft	85 mil	18.8	sq ft
12 mil	133	sq ft	90 mil	17.7	sq ft
15 mil	106.6	sq ft	95 mil	16.8	sq ft
16 mil	100	sq ft	100 mil	16	sq ft
17 mil	94	sq ft	125 mil	12.8	sq ft
18 mil	88.8	sq ft	150 mil	10.6	sq ft
20 mil	80	sq ft	200 mil	9	sq ft
25 mil	64	sq ft	250 mil	6.4	sq ft
30 mil	53.3	sq ft	500 mil	3.2	sq ft

LIMITATIONS

- **SEALMARK KOMMAND KOTE** should not be applied to substrates that have been treated with a silicon base water repellent or to any adjacent surface(s) not properly sealed or waterproofed.

Drying Time

SEALMARK KOMMAND KOTE drying time is influenced by ambient temperature and humidity levels. Assess environmental conditions prior to applying coating to ensure optimal drying performance.

- **Ambient Conditions:** The drying time of **SEALMARK KOMMAND KOTE** depends on ambient air temperature and relative humidity (RH).
- **Normal Conditions:** Under normal conditions (70°F and 55% RH), a minimum of 6 hours is required for acceptable curing before applying a second coat.
- **Complete Cure:** The coating reaches complete cure after 24 hours.
- **Extended Drying Time:** High relative humidity, damp conditions, and cool temperatures will extend the drying time.

APPLICATION

SEALMARK KOMMAND KOTE is versatile and can be applied to a wide range of surfaces, including existing cured concrete, masonry, stucco, glazed brick, rubber, wood, metals, and other structurally stable or painted substrates.

Application Note:
For optimal results, should be applied for consistent coverage of protective layers on previously unpainted surfaces follow by two coats of **SEALMARK KOMMAND KOTE** to ensure maximum performance and compliance with the warranty requirements.

USABLE LIFE AND STORAGE

Coating must be stored at a continuous environmental temperature of at least 45°F or higher. Storing in temperatures closer to normal room temperature 70°F will result in easier application. ALWAYS AVOID FREEZING. Always store in tightly sealed container and away from direct sunlight. The shelf life is for a period of 1-year after the product's manufactured date.

PACKAGING INFORMATION

SEALMARK KOMMAND KOTE is available in 5 gal (19 L) pails. Or 55-gal Drum upon request.

HEALTH, SAFETY AND ENVIRONMENTAL INFORMATION

Please see our website for further information or consult your local Sealmark representative.

WARRANTY

SEALMARK KOMMAND KOTE is subject to a written limited warranty upon request for qualified applications.

Note: Surface conditions must be free of bond-breaking materials. Two coats (16 mils each coat* SEALMARK KOMMAND KOTE *must be applied to meet the requirements and a completed and signed "Request for Warranty" for the 15-year limited material warranty.

PROCEDURES

Job Conditions

Temporary protection shall always be provided for a specified duration until the **SEALMARK KOMMAND KOTE** has achieved a completely cured state to protect from all weather, natural elements, and other potential damage.

Surface Preparation

1. **Surface Condition:** Ensure the surface is clean, dry, and structurally stable. The surface temperature should be above 45°F.
2. **Contaminant Removal:** The surface must be free from grease, oils, solvents, and silicone-based products that could compromise bond integrity.
3. **Substrate Aging:** For concrete, brick, or masonry walls, allow the substrates to age for a minimum of 30 days. The surface pH must not exceed 9.
    - PH Adjustment: To lower the pH, wash the substrate with a mild solution of citric acid and clean water. Rinse thoroughly with clean water and allow the surface to dry completely before proceeding with the coating application.
4. **Crack Filling:**
    - Small Cracks: Use Sealmark #1001 Brush Grade Caulk to fill small surface cracks, leveling it with the surrounding surface.
    - Larger Cracks: For cracks 1/8” or larger, use Sealmark #2010 Surface Leveler to fill and level the crack with the surface. Allow the crack repair products to dry completely before applying the coating.
5. **Priming:** Unpainted substrates must be primed with Sealmark #2000 Primer to ensure proper adhesion and performance.
6. **Material Compatibility:** Note that Sealmark coatings cannot be applied to asphalt or certain plastic materials.

Mixing Procedures

To ensure optimal performance and consistency of the **SEALMARK KOMMAND KOTE**, follow these detailed mixing procedures:

1. **Preparation**:
    - Ensure the pail of **SEALMARK KOMMAND KOTE** is at room temperature (above 45°F) before mixing.
    - Gather necessary equipment: a low RPM drill (300-450 RPM) and a standard paint mixing bit.
2. **Mixing**:
    - **Step 1**: Open the pail and inspect the contents for any separation or settling.
    - **Step 2**: Insert the paint mixing bit into the low RPM drill.
    - **Step 3**: Submerge the mixing bit into the coating, ensuring it reaches the bottom of the pail.
    - **Step 4**: Start the drill at a low speed to avoid splashing and mix gently for 60 seconds. Move the mixing bit in a circular motion and up and down to ensure thorough blending of all components.
    - **Step 5**: After 60 seconds, stop the drill and lift the mixing bit out of the pail slowly to allow excess coating to drip back into the pail.
3. **Inspection**:
    - Check the consistency of the coating. It should be uniform and free of lumps or unmixed material.
    - If necessary, repeat the mixing process for an additional 30 seconds to achieve the desired consistency.
4. **Application Readiness**:
    - Once mixed, **SEALMARK KOMMAND KOTE** is ready for application. Use immediately to ensure the best results.

Safety Note: Always wear appropriate personal protective equipment (PPE) such as gloves, goggles, and a dust mask during the mixing process to protect against splashes and fumes. Following these procedures will help ensure the **SEALMARK KOMMAND KOTE** is properly mixed and ready for application, providing optimal performance and durability.

Application Procedures

No special tools are required for the correct application of **SEALMARK KOMMAND KOTE**. However, using the appropriate tools and techniques will ensure optimal results:

1. **Tools Required**:
   - **Heavy-Duty Paint Roller/Applicator**: Ideal for large, flat surfaces. Use a roller with a high-quality, lint-free cover to apply the coating uniformly.
   - **High-Quality Brush**: Suitable for detailed work and edges. Ensure the brush is clean and free of loose bristles.
   - **Airless Sprayer**: For large or complex surfaces, an airless sprayer can be used. The sprayer should operate at 1,500 psi with a minimum tip size of 0.019 inches (19/1000th).
2. **Application Technique**:
   - **Roller Application**: Load the roller evenly with **SEALMARK KOMMAND KOTE**. Apply the coating in a consistent, uniform manner to completely cover the prepared substrate. Avoid overloading the roller to prevent drips and uneven coverage.
   - **Brush Application**: Dip the brush into the coating and apply with smooth, even strokes. This method is best for corners, edges, and detailed areas where a roller cannot reach.
   - **Sprayer Application**: Set the airless sprayer to 1,500 psi and use a tip size of 0.019 inches. Apply the coating in a steady, overlapping pattern to ensure even coverage. Maintain a consistent distance from the surface to avoid runs and sags.
3. **Important Considerations**:
   - **Do Not Back-Roll or Brush Over Applied Areas when product is tacking up**: Once **SEALMARK KOMMAND KOTE** has been applied, do not back-roll or brush over the area until it is completely dry. Back-rolling or brushing can disrupt the uniformity and coverage of the coating, leading to an uneven finish.
   - **Drying Time**: Allow the coating to dry before applying additional coats or exposing the surface to weather conditions.
4. **Safety Precautions**:
   - Wear appropriate personal protective equipment (PPE) such as gloves, goggles, and a dust mask during application.
   - Ensure adequate ventilation in the work area to minimize inhalation of fumes.

Following these procedures will help achieve a smooth, durable, and aesthetically pleasing finish with **SEALMARK KOMMAND KOTE**. If you have any further questions or need additional guidance, contact your local representative.

Cleaning Procedures

Use soap and water for clean-up. System materials are water-borne and are non-toxic. Prior to curing, system materials are water soluble. Clean up any spills, overspray, or residue of the system materials before they have time to set. Cured or dried system materials are not water soluble and may prove to be difficult to impossible to remove without damage to substrate or other materials upon which they have dried. Dispose of waste materials and empty containers into an approved waste disposal facility. Never dump materials into storm drainages, sanitary sewers, or into bodies of water.

CAUTIONS

To ensure easy clean-up of **SEALMARK KOMMAND KOTE**, take appropriate steps such as properly tarping/securing the application area to prevent unintended application, as the product may be difficult to remove.

NOTE: Certain wall substrates may have been coated with a clear silicon water repellent, which can adversely affect the adhesion of Sealmark products. If the presence of silicon treatment is unknown, it is recommended to apply a test application to the substrate and check adhesion after curing.

TYPICAL PROPERTIES

(Specification Writers: These values are not intended for use in preparing specifications).

TEST	PROPERTY	RESULT
ASTM-D-3359	Adhesion	Tape cross-hatch method. 100% of coating remained in place.
ASTM-D-2794	Impact Resistance	Withstood 160-inch pounds
ASTM-D-714	Blistering Resistance	No blisters
ASTM-D-1308	Chemical Resistance	24-hour exposure to 22 chemical staining agents
ASTM-D-2369	Amount of Solids	Percentage wt/wt 67.77 Percentage wt/vol 85.41
ASTM-D-412	Elongation	400%
ASTM-D-3273-73T Tropical Chamber Exposure	Fungal Resistance	No fungal growth on sample
ASTM-D-2247	Water Resistance	398 hours-No cracking, peeling, blistering or color change
ASTM-D-968	Abrasion Resistance	Withstood 450 L. of falling sand abrasion. No wear through.
ASTM-B-117	Corrosion Resistance	300 hours of salt fog. No rust
ASTM-C-1549	Solar Reflectance	94.7%
ASTM-C-1371	Thermal Emittance	.82
ASTM-E42-52	Accelerated Weather Test	Exceeds max testing requirements
ASTM-E-96	Water Vapor Transmission (breathing ability)	Permeance 1.365 perm Rough 1.365 Smooth 1.57
ASTM-E-108-82	Fire Resistance	Class A Rating
ASTM-E84-91A	Surface Burning Characteristics	Flame Spread Index 15 Smoke Development 55
ASTM-514	Wind Driven Rain	No leakage observed
ICBO STD	Bonding Strength Test	After weathering- Freeze/thaw Passes, no failures
ICBO Spec	Freeze/Thaw Cycle	10 Cycles, passing each cycle 100 F 8 hours -20 F 16 hours
Lab Methods	Solar Testing	Sealmark outperformed asphalt, aluminum, and elastomeric coatings
2-inch steel ball dropped repeatedly	Hail Resistance	Passes, No fractures of surface
Field Test	Ponding	After 4 weeks, no water penetrated through the coating system.
ASTM-D-1970 Capability to Seal Around Nail (Head of Water Test), Section 7.9	Nail Sealability	No water in the bottom container, on the shank of the fasteners, and on underside of substrate