

COMPANY

NANVERA Advanced Materials

PRODUCT CODE (SKU)

KL-018 — PUTTYFLEX FIREPROOF

ISSUE DATE / REVISION

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Section 1: Identification of the Product and Company

Product Type: Water-based, high-build elastomeric putty, thermal-barrier and fire-resistant, for levelling and skim-coating flat indoor surfaces (Indoor Skim Coat / Leveling Putty).

Recommended Use: Levelling and protection of indoor concrete walls and ceilings, masonry, gypsum, and wood; forming a thermal barrier and fire-protection shield in life-safety facilities.

Manufacturer: KEMT CASTELLO factory (KEMVI Trading & Contracting), Cairo, Egypt.

Section 2: Hazards Identification

Environmental & Health Classification: Water-based product, eco-friendly, non-toxic, ultra-low VOC content (< 10 g/L), safe for indoor air quality.

Flammability: Completely non-flammable in wet/liquid state (water-based).

Skin Contact: May cause dryness or mild mechanical irritation of sensitive skin on direct, prolonged contact before drying.

Eye Contact: May cause mild mechanical irritation on direct contact.

Inhalation: Completely safe; does not release harmful vapors or volatile organic solvents.

Section 3: Composition / Information on Ingredients

Basic Chemical Composition: Water-based nano-structured polymer resins, reinforced with thermal-protective additives and inert micro-minerals.

Component System: Single-component, ready-to-use water-based system.

Solids Content: $68\% \pm 2\%$.

Solvent: Pure water $32\% \pm 2\%$ (completely free of petroleum or organic solvents).

VOC Content: Less than 10 g/L (complies with LEED / EU Directive standards).

Section 4: First Aid Measures

Eye Contact: Immediately rinse with clean running water for 15 minutes, holding eyelids open. Seek medical attention if irritation persists.

Skin Contact: Wash the affected area with soap and water before the putty dries on the skin.

Inhalation: Move the affected person to fresh air (the product does not release harmful solvent vapors).

Ingestion: Do not induce vomiting. Rinse the mouth thoroughly with water and seek medical attention immediately.

Section 5: Fire-Fighting Measures

Flammability: The material in its wet state is non-flammable (water-based paste).

Behavior on Curing / Fire Exposure: Once dried and exposed to direct fire (up to 800°C), the material thermally expands to form an inert, carbonized insulating layer that prevents heat penetration to the

underlying surface, without releasing toxic gases.

Suitable Extinguishing Media: Water spray, CO₂, foam, or dry chemical powder for surrounding fires.

Section 6: Accidental Release Measures

Clean-up Measures: Scrape up spilled putty with a putty knife or trowel and collect in closed containers for disposal.

Environmental Precautions: Do not discharge uncured material directly into sewers or drains.

PPE: Use rubber gloves and safety goggles during clean-up.

Section 7: Handling and Storage

Handling: Apply with a trowel, putty knife, or mechanical putty-spraying equipment in indoor spaces.

Keep out of reach of children and ensure suitable natural ventilation on site.

Storage: Store in the original tightly closed container in a dry, shaded place at a temperature of +5°C to +35°C.

Shelf Life: 12 months from date of manufacture under standard conditions.

Section 8: Exposure Controls / Personal Protection

Engineering Controls: Provide good natural ventilation in the indoor application area.

Eye Protection: Safety goggles.

Skin Protection: Standard rubber / chemical-resistant gloves.

Respiratory Protection: Standard dust/spray mask during mechanical application or dry sanding.

Section 10: Stability and Reactivity

Chemical Stability: Completely stable under standard conditions of use and storage.

Hazardous Reactions: No hazardous reactions known.

Incompatible Materials: Concentrated strong acids and aggressive organic solvents before full cure.

Section 11: Toxicological Information

Acute Toxicity: Completely non-toxic product.

Local Effects: Does not cause sensitization or toxicity by inhalation or direct skin contact.

Section 12: Ecological Information

Environmental Impact: Water-based product, free of harmful solvents, phthalates, and toxic volatile organic compounds.

Environmental Compatibility: Completely safe for indoor use, does not pollute indoor air.

Section 13: Disposal Considerations

Disposal Method: Residues of cured material are disposed of as inert, non-hazardous construction waste.

Packaging: Recycling of empty plastic containers after rinsing with water is recommended.

Section 14: Transport Information

Transport Classification: Not regulated and not classified as dangerous goods under ADR (road), IMDG (sea), or IATA (air).

Section 15: Regulatory Information

Compliance & Standards: Complies with Egyptian and international standards for fire-protection and thermal-insulation systems: ASTM E119 / BS 476 Part 20/21 (Fire Tests of Building Construction & Materials), ASTM E84 Class A (Surface Burning Characteristics).

Section 9: Physical and Chemical Properties

Property	Value
Physical State	Smooth thick paste
Color	White / off-white
Density (at 25°C)	1.25 ± 0.05 g/cm³ (ASTM D1475)
Solids Content	68% ± 2% (ASTM D1644)
pH	8.0 - 9.0
Flash Point	Non-flammable / water-based (no flash point)
Shrinkage	None after full cure

Section 16: Other Information / Disclaimer

This MSDS is prepared based on certified laboratory testing and the standard formulation of KEMT CASTELLO factories. The company guarantees the quality of the supplied product and its chemical conformity, while on-site execution conditions remain outside its direct control.

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