

**COMPANY INTRODUCTION** : Betonite, Decorative and multipurpose Coating Products, operates production, sales, and application activities with various pattern varieties and rich color options with using 35 years of accumulated production knowledge. The products, manufactured in fully automated integrated closed production facilities, are produced, packaged, and shipped according to the demand of the sectors. Our products are domestically manufactured and comply with international production standards.

By utilizing the most up-to-date production technologies that direct consumer demands, Betonite continues its investments sustainably, emphasizing brand investment while being a leading and innovative brand identity that produces high-quality decorative coatings within the industry.

Betonite, using all the possibilities of technology to protect the environment with being aware that our environment is borrowed from future generations.

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## TERRAPER<sup>®</sup> FIRE INSULATION



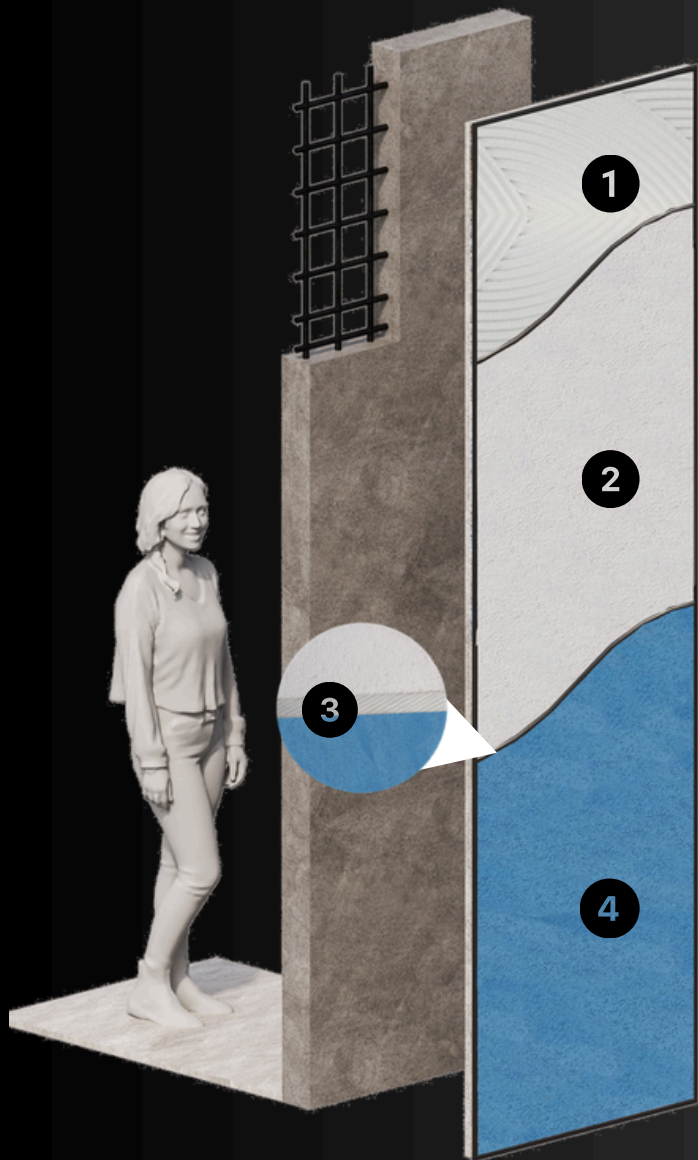
It is a multi-purpose fire insulation plaster that provides insulation against heat, sound, and fire in the applied area, thanks to its perlite based structure and porous natural lightweight aggregates in its mixture.

Terraper fire insulation coating provides significant benefits in preventing the spread of fire in all residential and commercial structures, especially in accommodation facilities, schools, hospitals, factories, boiler rooms, and other areas with a high risk of fire.

It has a resistance duration of 60 minutes at a temperature of 1,250°C. In non-chemically intensive residential fires, which reach temperatures above 750°C and are typically extinguished within 25-30 minutes, this coating significantly reduces both the structural integrity of the building and potential material and human losses in other building compartments.

Due to its 100% ecological mineral composition, it does not emit toxic or chemical gases.

# TERRAPER<sup>®</sup> FIRE INSULATION



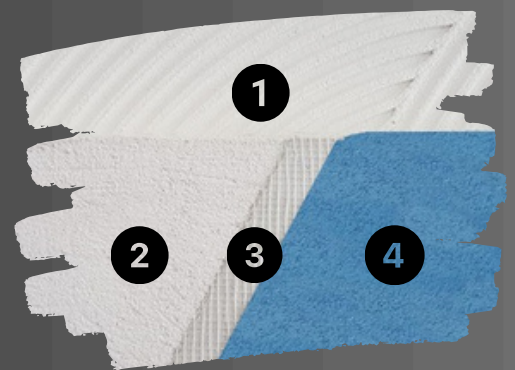
## EASY APPLICATION

**1** Terraper fire insulation coating is applied after the application of **surface adhesion mortar** on surfaces such as brick, gas concrete, lightweight concrete blocks, and concrete.

**2** The Terraper fire insulation coating is applied to the surface using 2.5-centimeter anode rods after proper mixing. Due to high plaster adhesion, the consumption is low, and its application is become easy.

**3** It is recommended to use a mesh before applying the final coat of mineral decorative coating or paint. The mesh is applied by pressing it onto the surface of the Terraper coating that has been previously applied.

**4** After applying the mesh, the desired decorative plaster or paint application completes the process.



**A1 CLASS NON FLAMMABLE** Terraper demonstrates resistance against fire with its special formula containing perlite and prevents the spread of fire. Therefore, it enhances the building's resistance to fire where it is applied. Perlite is a lightweight, insulating type of volcanic glass that is resistant to high temperatures."



**VOC FREE** Volatile organic compounds (VOCs) are volatile organic chemicals found in many chemical products that can adversely affect environmental air quality. VOC-free Terraper coating is ideal for creating healthier indoor environments and reducing environmental impacts.

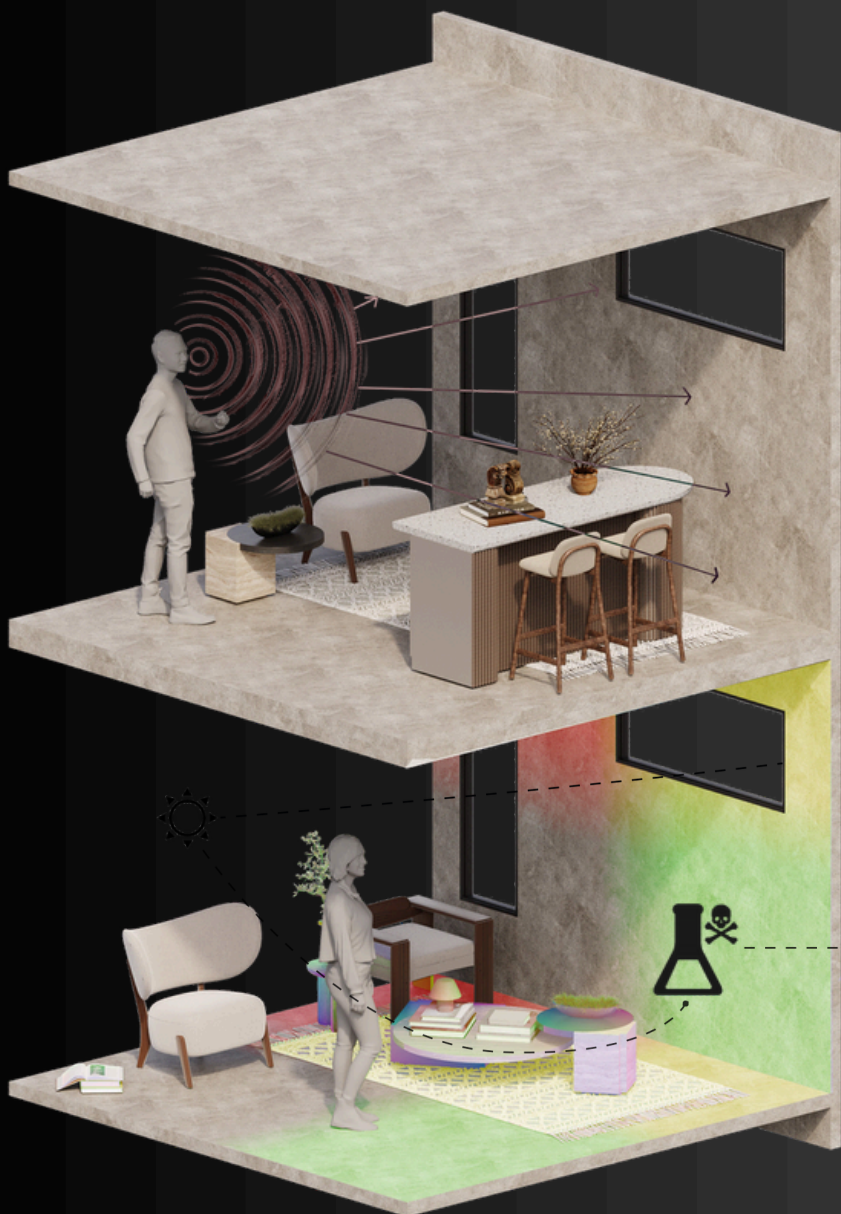


**ISOTHERMAL INSULATION** It is resistant to heat and moisture. It reduces the heat transfer of the coated surface to maintain the indoor temperature balance, prevent the infiltration of external cold or hot air, and maintain energy efficiency. Through its



**ECOLOGICALLY SUSTAINABLE** The production, its natural composition, and long-term use without requiring frequent maintenance make Terraper environmentally and health-friendly. Its recyclable structure contributes to sustainability.

# TERRAPER<sup>®</sup> FIRE INSULATION



## FREE FROM CHEMICAL EMISSIONS

Terraper does not undergo chemical changes when exposed to sunlight and does not release harmful gases or chemicals into the air on the applied surface. This increases the durability of the exterior while maintaining indoor air quality.



## ACOUSTIC EFFECT

Terraper, while absorbing noise with its sound insulation, also prevents sound from echoing indoors and provides acoustic comfort. This enables the creation of a quieter environment indoors or achieving desired sound characteristics.



## SOUND INSULATION

Terraper limits the transmission of noise from outside to inside or from one room to another with its superior sound absorption, absorbing sound waves. Thus, it reduces noise pollution and creates quieter and more comfortable indoor spaces. In applications with a thickness of 3cm, it reduces sound by 42 decibels.


**TERRAPER<sup>®</sup> FIRE INSULATION**

**REFERENCE STANDARD:** TS EN 998-1 / TS EN 13501-01 / CE / F60

**ADVANTAGES:**

- Being lightweight, it does not impose additional loads on the structure.
- Provides thermal, acoustic, and fire insulation with a single product.
- As an inorganic material, it does not contain harmful chemicals to the environment and human health.
- Forms a fire barrier.
- Increases the value of buildings.
- Has capillary active structure.
- Provides sound (acoustic) insulation due to its porous structure.
- Allows surfaces to breathe due to high water vapor permeability.
- Resistant to external influences due to its fiber-reinforced structure, protects the building for many years.
- High resistance to water and freezing.
- Has a natural and decorative appearance.
- Easy to apply.
- Prevents moisture and mold formation.

**APPLICATION AREAS:** Applied as thermal, acoustic, and fire insulation plaster on surfaces such as brick, gas concrete, lightweight concrete blocks, and concrete on the exterior and interior facades of buildings. Protects steel structures against fire. • Consult us for all other application surfaces. **SURFACE PREPARATION:** Dust, oil, paint, and dirt on the surface where the application will be made should be removed. The surface should be solid and clean. Loose parts are cleaned until a solid base is reached using mechanical methods. In existing buildings, after roughening the surface with the scraping method, the surface should be primed with Bentonite Primer Exto and/or an application surface should be made with mortar in a horizontal manner with a 6 mm comb using a flexible ceramic adhesive. In new buildings, absorbent, slippery, and concrete surfaces should be primed with Bentonite Primer BBA. Mineral surfaces must be moistened before application, and application should not be made in very hot and windy weather. Applied to steel structures using a trowel or spray method. **APPLICATION CONDITIONS:** The ambient temperature should be between +5 °C and +30 °C. Avoid application in very humid and/or very hot weather conditions under direct sunlight. It should not be applied on surfaces that are frozen, thawing, or at risk of freezing within 24 hours. **APPLICATION:** The content of a 16 kg bag of TERRAPER thermal, acoustic, and Fire Insulation Plaster should be slowly added to an average of 13 - 14 liters of clean water. TERRAPER Heat, Sound, and Fire Insulation Plaster should be mixed with a low-speed hand mixer for 3-4 minutes until it reaches a homogeneous consistency. The mortar should be rested for 5 minutes before application and then mixed again. TERRAPER Heat, Sound, and Fire Insulation Plaster are applied between anodes with a steel trowel or plaster pump at a maximum thickness of 3-4 cm and troweled. After the pre-setting of the material, the anodes are removed, and the gaps are filled with TERRAPER thermal, acoustic, and Fire Insulation Plaster. \*Under no circumstances should water or new material be added to the mixture that has started to dry.

\*The application thickness should not exceed 3-4 cm in the first layer. For thicker applications, it is recommended to use plaster mesh. In hot and windy weather, the application surface should be moistened. Before starting another application on top of TERRAPER thermal, acoustic, and Fire Insulation Plaster, it should be allowed to wait for at least 2 days. **APPLICATION TOOLS:** Steel trowel, plastering trowel, float, plaster pump, trowel, anodes. **CONSUMPTION:** At a thickness of 1 cm: 4.5 - 5 kg/m<sup>2</sup> **STORAGE:** Packaging Information: 16 kg Kraft bag, pallet: 40 bags / 640 kg Shelf Life: The product has a shelf life of 1 year from the production date, provided that the product is stored in dry and cool conditions without opening the packaging. A maximum of 2 pallets can be stacked in the original packaging. The packaging should be tightly closed when not in use. **SAFETY WARNINGS:** • Use appropriate safety equipment (dust mask, gloves). Protect your eyes/face. • Avoid contact with eyes and skin. • In case of eye contact, immediately rinse with plenty of water and seek medical advice. • Read the Material Safety Data Sheet for detailed safety information. **LEGAL DISCLAIMER:** Our company is not responsible for application errors that may occur due to the product's use for purposes other than its intended use or failure to comply with the technical application conditions and recommendations stated above. The data in this technical sheet contains information as of the date of writing. The manufacturing company reserves the right to modify this information.



**TS EN 998-1 / TS EN 13501-1**

Capillary Water Absorption	: W1
Adhesive Strength	: ≥ 0.20 N/mm
Water Vapor Permeability	: ≤ 15 kg/m <sup>2</sup> ·s·Pa
Compression Strength	: CSII
Bulk Density	: 425-450 kg/m <sup>3</sup>
Application Density	: +8°C to +35°C
Thermal Conductivity Coefficient	: Class T1
Reaction to Fire Class	: Class A1
Fire Resistance	: 1 hour



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