

TUNNEL-TECHNICAL DATA SHEET



'TUNNEL' TUNNEL INSULATION PLASTER

PRODUCT FAMILY: PLASTER

APPLICATION AREA: TUNNELS

USAGE SURFACE: EXPOSED CONCRETE

APPLICATION TECHNIQUE: MACHINE



RIISING VALUE OF INSULATION 'İZORİYAL'

TUNNEL; It is a new generation composite TUNNEL INSULATION PLASTER with perlite-based natural granular mineral content, polymer additives that are harmless to humans and nature, with HIGH PRESSURE RESISTANCE, FIRE RESISTANCE, WATER REPELLENT (HYDROPHOBIC) and DENSITY properties INCREASED.

PRODUCT SPESIFICATIONS

Package Rope	BIGBAG
Reaction to Fire*	800 °C - A1
Bond Strength*	0,36 N/mm ² - FP:B
Capillary Water Aabsorption*	0,50 kg/(m ² .min ^{0,5}) - W1
Pressure Resistance*	2,5 N/mm ² - CSII
Water Vapor Permeability*	3,25 kg/m ² .s. Pa μ≤15 kg/m ² .s. Pa
Thermal Conductivity*	0,20±5 W/m ² .K - T2
Dry Unit Density*	1100 ±50 kg/m ³
Sound Absorption*	8-10 db/1cm
Method of Application	Machine or By Hand
Consumption*	1 m ³ = 1 tonne
Shelf-Life	12-18 Months (in dry environment)
Setting Time*	First Setting Between 6.5-8 Hours Last Setting Between 12-18 Hours
Shrinkage	Does not Shrink in Drying or Humid Environmen
Greenhouse Gas Effect	CO ₂ Carbon Emissions are Zero
Workability	Between 6-8 Hours

*Technical specifications are for information purposes.
Cannot be used instead of official documents

T.C. MINISTRY OF ENVIRONMENT, URBANIZATION AND CLIMATE CHANGE
POZ NO: 04.484

BENEFITS

- PROVIDES THERMAL INSULATION, DOES NOT FORM A THERMAL BRIDGE
- **TOO HIGLY** WATER REPELLENT-HYDROPHOBIC, RESISTANT TO ATMOSPHERIC CONDITIONS
- BREATHABLE, DOES NOT FORM BACTERIA, PROTECTS FROM MOISTURE
- PROVIDES HEALTHY LIVING BY PREVENTING MOISTURE AND MOLD FORMATION
- A1 CLASS FIREPROOF PRODUCT, RESISTANT UP TO 800 °C
- T2 ENERGY CLASS
- IT IS A LIGHTWEIGHT MATERIAL WITH LOW DENSITY
- ACOUSTIC PROPERTIES, ABSORBS SOUND
- HAS THE ABILITY TO REDUCE RADIATION IN THE ENVIRONMENT
- EASY TO APPLY, REPAIRABLE
- NO GREENHOUSE GAS EMISSION ENVIRONMENTALLY FRIENDLY
- CARCINOGEN FREE, NOT PETROCHEMICAL PRODUCT
- SHORT LABOR AND TERMINATION TIMES, SHORTENS THE CONSTRUCTION PERIOD OF THE BUILDING, SAVES MATERIAL AND LABOR COSTS
- SIMILAR TO SCREED APPLICATIONS, EASY TO APPLY
- NO DOWEL REQUIRED, PREVENTS PUNCTURING OF THE STRUCTURE AND LOSS OF STRENGTH
- SUSTAINABLE AND ECOLOGICAL MATERIAL, ENERGY FRIENDLY
- REDUCES CARBON EMISSIONS BY LOWERING ENERGY CONSUMPTION
- UP TO **40%** SAVINGS IN HEATING AND COOLING COSTS

APPLIED STRUCTURES

- TRANSPORT STRUCTURES (Tunnels, Canals)



TUNNEL

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TUNNEL, WATER REPELLENCY
(HYDROPHOBIC) HAS BEEN INCREASED
BY SPECIALLY DEVELOPED.



T2 ENERGY CLASS
BEP-TR ID NO- L:0.061

OUR PRODUCTS ARE MANUFACTURED IN
ACCORDANCE WITH TS-EN 998-1 STANDARD
AND ARE IN T2 ENERGY CLASS. IN
CALCULATIONS ACCORDING TO TS-825
STANDARD, IZOROYAL PRODUCTS ARE
INCLUDED IN BEP-TR AND ENERGY IDENTITY
CERTIFICATE IS OBTAINED.

THINGS TO BE CONSIDERED DURING TRANSPORTATION-STOCKING AND APPLICATION

- Depending on the type of machine, the volume loss may vary depending on the breakage and crushing of the material by the machine.
- Protect from direct sunlight during storage, transportation and application.
- Product packages should not be exposed to point load effects during transportation and storage.
- IZOROYAL PRODUCTS SHOULD NOT BE EXPOSED TO LONG-TERM EXPOSURE TO ATMOSPHERIC CIRCUMSTANCES AFTER APPLICATION OF THE PRODUCT AND SHOULD BE COATED WITH FINAL COATING PRODUCTS (PRIMER-WATER BASED PAINT-DECORATIVE PLASTER- EXTERIORATIVE PLASTER- FACADE COATINGS- FLOOR COATINGS, etc.).
- 1 BAG SHOULD BE USED AT ONE TIME.
- Shelf life is 18 months and should be stored in dry, suitable ambient conditions.
- Safety precautions should be taken during application and manufacturer's instructions should be followed.
- PREPARATION STAGES OF PRODUCTS ACCORDING TO THE SURFACE TO WHICH THE PRODUCTS ARE APPLIED AND THE CONSTRUCTION TECHNIQUE SHOULD BE CONSIDERED according to the application manual.
- Waste account should be kept separately. It varies according to construction site conditions.
- Do not exceed the recommended amount of water. The material should not be used below the minimum temperature allowed for complete setting. Low temperatures may slow setting while high temperatures may accelerate it. The workability time varies depending on the temperature.
- The newly applied product must be protected against freezing.
- If all conditions are met, Product Quality is guaranteed with IZOROYAL assurance (20 years).

APPLICATION WITH MACHINE

Step 1: Equipment and Material Preparation

- Plastering machines suitable for light plaster mortars
- IZOROYAL "FILLER" LIGHT FILLER MATERIAL' (1 bag)

Step 2: Water Preparation

- 10-12 liters of water should be used for each bag.

Step 3: Preparing the Plaster

- Add the entire package to the machine all at once.
- Add 10-12 liters of water for each bag.
- Mixing time should be adjusted so that the plaster has a consistency that will flow easily on the floor. Allow the mixed plaster to rest for 5 minutes.

Step 4: Surface Preparation and Profile Installation

- The application surface must be clean, free of dust, clean and damp
- Profiles of the desired thickness are inserted

Step 5: Applying the Plaster

- The prepared plaster is applied to the surface by machine.

Step 6:

- The process is left to the Setting Time

LEGAL NOTES

Technical specifications are for information purposes. They cannot be used instead of official documents. The information provided on IZOROYAL products, and in particular recommendations on their application and end use, are provided under normal conditions and in accordance with IZOROYAL's instructions. This information is based on current knowledge and experience of the conditions under which the products are stored, processed and applied correctly. IZOROYAL is solely responsible for the quality of the product. However, it may vary as products are used in practice on different surfaces and in different application areas. For this reason, the information and instructions provided by IZOROYAL regarding commercial suitability and/or fitness for a particular purpose must be strictly adhered to. Otherwise, IZOROYAL shall not be liable for any possible damages and in case the product is used for other than its intended purpose or if the application recommendations are not followed. Users should test the suitability of the product for the specific applications and purposes for which they intend to use the product. IZOROYAL reserves the right to change product specifications. The property rights of third parties must be respected. All orders are subject to the current terms of sale and transportation. Users should always contact IZOROYAL to obtain the latest edition of the relevant product data sheets.

PRODUCT INFORMATION BASIS & LOCAL RESTRICTIONS

- All information in this product technical file is based on laboratory experiments and our best possible accuracy and scientific experience. The values obtained in applications may vary due to variables beyond our control.
- Due to local regulations, the performance of this product may vary from country to country. Please refer to local product data sheets for exact application areas.

ENVIRONMENTAL HEALTH AND OCCUPATIONAL SAFETY

Users should consult the material safety data sheet (MSDS) for the product for information and advice on the safe handling, storage and disposal of products. This form contains physical, ecological, toxicological and other safety-related information.



ENERGY
EFFICIENT



100%
NATURAL
ECOLOGICAL
& NATURAL



HARMLESS
TO HEALTH



SUSTAINABLE