

NESCOAT® CrystalSeal Waterproofing Material

DESCRIPTION

NESCOAT® CrystalSeal is a cement-based, one-component waterproofing mortar. Upon contact with water, it crystallizes and penetrates pores and cracks, sealing these areas and making the surface impermeable to water.

APPLICATION AREAS

- Suitable for both indoor and outdoor use in horizontal and vertical applications on reinforced concrete surfaces, providing protection against both positive (water-exposed) and negative (water-infiltration) water pressure.
- Ideal for waterproofing underground and above-ground structural elements such as elevator shafts, foundations, basements, retaining walls, swimming pools, water tanks, and water channels.

ADVANTAGES

- Resistant to both positive and negative water pressure.
- Provides seamless waterproofing on applied surfaces.
- Single-component, prepared by simply mixing with water.
- Quick and easy to apply.
- Durable against hot-cold cycles.

SURFACE PREPARATION

The substrate must be smooth, clean, dry, and strong enough to support the subsequent application. Remove all contaminants such as dirt and dust that may hinder adhesion. Ensure that pores on the concrete surface are open. If pores are clogged with dirt or dust, clean them with a water jet or wire brush. Repair cracks and uneven areas using NESCOAT® repair mortars to ensure a level surface. Weak points such as corners and edges should be beveled (coved) with NESCOAT® repair mortars. If this is not feasible, apply **NESCOAT® SEALBAND Waterproofing Tape for Wall and Floor Joints**. Active water leaks should be stopped using **NESCOAT® WR STOP**. Dampen the surface thoroughly, ensuring no water pooling occurs.

MORTAR PREPARATION

1. **Brush Application:** Gradually add 25 kg of NESCOAT® CrystalSeal into 8-8.5 liters of clean water and mix with a low-speed mixer for about 3 minutes until a lump-free consistency is achieved. Let the mortar rest for 5 minutes to dissolve additives, then remix for 1 minute. Adjust the consistency by adding water or product if necessary. Use the prepared mortar within 30 minutes. Do not add water or product to hardened material.
2. **Dry Sprinkle Under Foundations:** No preparation is required; the mortar is applied directly in dry form.

APPLICATION

1. **Brush Application:** Apply the prepared mortar with a brush onto the surface. Apply the second coat perpendicular to the first coat after at least 3 hours. For surfaces exposed to pressurized water, a 3-coat application is recommended.
2. **Dry Sprinkle Under Foundations:** After casting the lean concrete, installing the raft foundation mold, and tying the reinforcement, sprinkle NESCOAT® CrystalSeal evenly and homogeneously at 3 kg/m² directly onto the lean concrete before casting the raft foundation concrete. Once the dry sprinkle process is complete, proceed with the concrete pouring.

CURING TIME

The product gains mechanical strength 2 days after application and becomes waterproof 7 days after application. Curing time shortens at higher temperatures and lengthens at lower temperatures.

CONSUMPTION

- **Brush Application:** 2 kg/m² (for 2 coats)
- **Dry Sprinkle Under Foundations:** 3 kg/m²

The specified consumption amounts may vary depending on the surface and application conditions. A sample application is recommended for accurate consumption measurement.

WARNINGS AND RECOMMENDATIONS

- During application, ambient and surface temperatures should be between +5°C and +35°C.
- The surface should be regularly moistened by spraying water at intervals for 5 days.
- For exterior applications, protect the surface from direct sunlight, rain, and wind for at least 24 hours.
- If the surface will be exposed to sunlight or pedestrian traffic, it must be covered with a finishing material such as plaster, screed, or ceramic tiles.

STORAGE AND SHELF LIFE

- Protect the product from moisture, heavy sunlight, and frost.
- Do not stack more than 2 pallets on top of each other.
- Shelf life is 12 months from the production date under proper storage conditions.
- Opened packages should be tightly sealed when not in use and consumed within one week.

PACKAGING

- 25 kg kraft bag (PE reinforced)

SAFETY PRECAUTIONS

- Use appropriate protective equipment (clothing, gloves, goggles, mask) during application.
- In case of skin contact, wash the affected area thoroughly with water.
- For more detailed information, refer to the Material Safety Data Sheet.

QUALITY CERTIFICATES

- Complies with the ISO 9001:2015 quality management standard.
- Complies with the TS EN 14891 building materials standard.
- CE marked, compliant with EU standards.



TECHNICAL SPECIFICATIONS

Feature	Value
Appearance	Grey Powder
Pressurized Water Resistance	≥ 7 bar (for 3 mm thickness, positive and negative sides)
Adhesion Strength	≥ 1 N/mm ²
Capillary Water Absorption	< 0.1 kg/m ² h ^{0.5}
Temperature Resistance	-40°C / +80°C

*The values mentioned above are valid for +23°C and 50% relative humidity.

LEGAL DISCLAIMER

The information in this document is based on NESCAOT's laboratory tests and field experiences. NESCAOT is not responsible for any adverse outcomes resulting from the use of the product outside its intended purpose or if the above-mentioned conditions are not followed.