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TECHNICAL DATA SHEET AND APPLICATION INSTRUCTION: ECOS DRY MIX

Version: 1.0 (User Instruction)
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1. Product Description

ECOS Dry Mix is a dry building mixture based on mineral binders (Class F) with a chemical alkaline activator.
It is intended for plastering and repair works.
The product does not contain water glass, lime, or organic modifiers.

2. Material Composition

- Mineral binder based on fly ash (Class F)
- Quartz sand (fraction up to 1 mm)
- Portland cement CEM I 42.5 R – max. 4%
- Chemical alkaline activator – dry additive

3. Mix Preparation

Parameter	Value / Condition
Water / dry mix ratio (W/S)	0.32 L of water per 1 kg of dry mix
Water temperature	20 ± 2 °C
Mixing time	3–5 minutes; if water temperature is below 18 °C – up to 5–7 minutes
Preparation procedure	1. Measure the required amount of water. 2. While stirring continuously, gradually pour the dry mix into the water. 3. Mix until a uniform consistency is achieved. 4. Let the mix rest for 2–3 minutes before application to allow the activator to dissolve completely.
Mixture consistency	Plastic, homogeneous, non-flowing, without dry particles.
Workability time	20–30 minutes at 20 °C. Re-adding water is not allowed.

Technical explanation:
The mixture is prepared according to the **“dry into water”** principle.
When the dry mix is poured into water, the activator dissolves evenly, ensuring uniform alkalinity and high material strength.
If water is poured onto the dry mix, part of the activator may remain undissolved in lumps, leading to uneven hardening, surface dusting, and reduced strength.

⚠️ Attention:

All parameters and working steps specified in this instruction must be followed precisely.
Failure to comply with the given ratios (water, temperature, mixing time, curing conditions) may result in reduced strength, surface dusting, and deterioration of material performance.

4. Application and Curing Conditions

Parameter	Condition
Substrate	Mineral (concrete, brick, cement plaster), clean, dust-free, and sound.
Layer thickness	5–15 mm
Application temperature	20 ± 2 °C (ambient and substrate temperature)
Relative humidity	50–65 %
Curing (Important!)	Protect against drying during the first 48 hours (e.g. under polyethylene film) or maintain humidity of at least 95%.
Further curing	After 48 hours, allow to harden in air at 20 ± 2 °C without drafts.
Full strength development	28 days

5. Mixture Properties

- Exceeding the recommended water amount causes strength loss and surface dusting.
- Insufficient mixing or use of cold water (below 18 °C) may lead to incomplete dissolution of the activator and reduced strength.
- To compensate for low water temperature, mixing time may be extended up to 7 minutes; however, optimal results are achieved at 20 ± 2 °C.
- The prepared mix must be homogeneous, without visible impurities or gray granular areas.

6. Packaging and Storage

- Packaging: paper or plastic bags of 5, 10, or 25 kg.
- Store in dry rooms at temperatures from +5 to +25 °C.
- Avoid contact with moisture and direct sunlight.
- Shelf life – up to 6 months in undamaged packaging.

7. Manufacturer

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