

Description

On its own, Electroland already provides rapid hardening within a few hours and high resistance to abrasion, even to mechanical impact. The significant heat of hydration released during the initial hours makes Electroland a recommended cement in very cold climates. Electroland does not release calcium hydroxide during its hydration and, therefore, exhibits excellent resistance to chemical and bacteriological attacks, even when both are acting simultaneously. Electroland is a hydraulic binder with versatile properties used in construction chemistry. For example, when appropriately combined with Portland cement, it achieves extremely rapid setting and hardening. In ternary mixtures, Electroland-Portland-calcium Sulphate allows for the control of drying time and dimensional stability, both in terms of shrinkage and expansion. Electroland is also a highly refractory cement (1,300°C).

Shipping and Storage

- Available in bulk, in big bags of 1,050 kg, 1,200 kg, and 1,500 kg, as well as in 25 kg sacks.
- Sacks and big bags should be stored in dry and ventilated areas.
- Bulk storage should be done in watertight silos.

Cement Features

Typical value

CHEMICAL

Al ₂ O ₃	38,5%	FeO	3,5%	S ²	0,02%
CaO	37,5%	SiO ₂	4,5%	SO ₃	0,02%
Fe ₂ O ₃	12%	Cl	0,01%	Alkalies	0,2%

MECHANICAL Y PHYSICAL

Compressive strength 6h (MPa):	50	Initial setting time (min):	210
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Compressive strength 24h (MPa):	75	Final setting time (min):	230
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Specific Blaine surface (cm²/g): 3200

ADDITIONAL

Laser granulometry D (v,0.9) (um):	<70	Apparent density (g/cm ³):	1,1
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Segger cone: 9 (1280°C)	9 (1280°C) P	Specific weight (g/cm ³):	3,2
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Main mineralogical component:	Monocalcium aluminate CaO·Al ₂ O ₃		
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Secondary mineralogical components:

Ca₂ Fe AlO₅, Ca₂ Al₄ O₃₃, β-Ca₂ SiO₄ Ca₃ TiFe₂ O₈, FeO

Recommended for mortars and concretes

- Rapid setting, even in cold weather.
- Resistant to attack by Sulphates and certain acids (pH≥4). Chemical and bacteriological resistance.
- Resistant to abrasion and mechanical impact.
- Used in products formulated by the construction chemical industry with properties of rapid setting and hardening (water stops, adhesives, repair mortars, grouts, self-leveling compounds).
- Refractory, refractory-insulating, and even resistant to thermal shock.

Not suitable for

- Not recommended for structural reinforced or prestressed concrete.
- Mass or large volume concrete.
- Soil stabilization or bases treated with road cements.
- Mortars and concretes in contact with alkali-releasing media.
- Prohibited for prestressed concrete, according to the Structural Concrete Instruction (EHE).

Worksite precautions

- Given its high reactivity, mortars and concretes with Electroland should be cured during the first 24 hours.
- Minimum cement dosage of 400 kg/m³.
- Maximum water/cement ratio of 0.40, considering the water provided by the aggregates.
- Clean aggregates, with few fines smaller than 0.2 mm, and not susceptible to releasing alkalis.
- Ensure good compaction of the concrete.

If you need more information, please request it from us. AENOR certifies the compliance of this cement with the specifications of the UNE-EN 197-1 standard (common cements), evaluating it according to the established regulations in the Specific Regulation RP 15.01 (N Mark). Therefore, it also has the corresponding CE conformity certificate. This cement contains a chromium (VI) reducing agent. AENOR also certifies compliance with the regulatory limit for the content of Cr (VI) soluble in water according to the UNE-EN 196-10 standard.

TECHNICAL SUPPORT SERVICE

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CUSTOMER SUPPORT SERVICE

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