

FAST SET RENDER

Description:

By itself, Fast set render already contributes to characteristics of fast hardening in few hours and high resistance to the abrasion, even to the mechanical shock. The important heat of hydration released during the first hours turns to Fast set render into a recommended very cold climate cement. Fast set render does not release calcium hydroxide during their hydration and, therefore, it has excellent resistance to the chemical and bacteriological attacks, even when both act simultaneously. Fast set render is a hydraulic binder with versatile properties used in the building chemistry. For example, in appropriate combination with Portland cement, extremely fast setting and hardening is obtained. In ternary mixtures, Fast set render -Portland-calcium sulphate regulates voluntarily the rapidity of the drying time and the dimensional control, as much regarding to retraction as to expansion. Fast set render also is a highly refractory cement (1.300°C).

Cement features:

Clinker: 100 %					
Usual value	Specification	Usual value	Specification	Usual value	Specification
Al ₂ O ₃ 41,5%	35%≤Al ₂ O ₃ ≤58%	FeO 4,5%	-	S ²⁻ 0,05%	≤0,10%
CaO 38,0%	-	SiO ₂ 3,0%	-	SO ₃ 0,10%	≤0,5%
Fe ₂ O ₃ 10,5%	-	Cl ⁻ 0,01%	≤0,10%	Alcalis ≤0,10%	≤0,4%
Usual value		Specification			
Compressive strength6h(MPa): 55		≥18,0			
Initial setting time(min): 200		≥90			
Compressive strength24h(MPa): 70		≥40,0			
Final setting time(min): 220		≤720			
Blaine specific surface (cm ² /g):		3100			
Additional properties:					
Main mineralogical component: CaAl ₂ O ₄					
Secondary mineralogical components: Ca ₂ FeAlO ₅ , Ca ₁₂ Al ₁₄ O ₃₃ , β-Ca ₂ SiO ₄ , Ca ₃ TiFe ₂ O ₈ , FeO					
Laser Particle Size D (v,0.9) (µm): less than 70 micros					
Bulk density (g/cm³): 1,1					
Cono Seger: 9 (1315°C)					
Specific gravity (g/cm³): 3,2					





Shipping and Storage:

- Available in bags of 25kg
- The bags should be stored in dry and ventilated places.
- Bulk storage should take place in sealed silos

Recommended for mortars and Concrete's:

That harden rapidly, even in cold weather. That are resistant to the attack of sulphates and certain acids (pH \geq 4). Quimical/bacteriological resistance. That are resistant to abrasion and the mechanical impact. Products made for the construction chemistry industry that are characterized by rapid setting and hardening (water leak sealers, adhesives, repair mortars, grouts, self-levelers, etc.) and by rapid hardening and drying with dimensional control (self-levelers, grouts, etc.). That are refractory, refractory-insulators and even resistant to the thermal shock.

Not recommended for:

- Pre-stressed concrete.
- Mass concrete in large volumes.
- Soil stabilization or cement-treated bases for roads.
- Mortars and concretes in contact with media that can release alkali

Precautions for use in Works:

- In view of its high reactivity, mortars and concretes with Fast Set Render must be cured during the first 24 hours. Minimum cement dosage of 400kg/m³. Maximum water/cement ratio of 0,40.
- Clean aggregates with few fines under 0,2mm, and not capable of releasing alkali.
- Ensure good compacting of the concrete.