

CEM I 42,5 R – SR3


 TECHNICAL
 DATA SHEET

Product Name

Portland Cement with high sulphate resistance

Related Standard

NT 47.01 (2017)

Packaging

Bag: 50 kg / Bulk: 25 Tones

Recommended Application

- Concrete for work at sea.
- Concrete for selenite environments.
- Large mass of concrete.
- Concrete for foundation and underground works.
- High demand reinforced concrete.
- Precast concrete army with or without parboiling.
- Pre-stressed concrete
- Paving and concrete pavements.
- Tile Works, flooring and sewers.
- Concrete ready for use.

Composition

Clinker	$\geq 95\%$
Limestone	$\leq 5\%$
Calcium sulfate setting regulator	

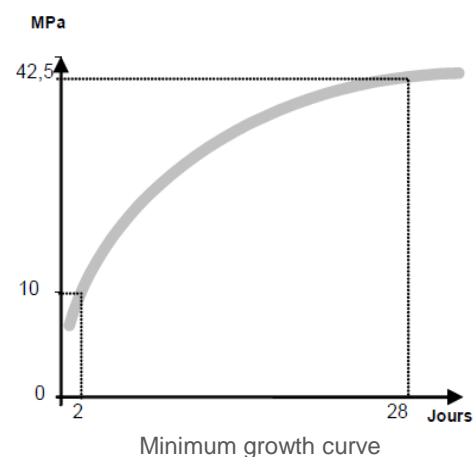
Characteristics

- Fast development of initial resistance.
- Normal growth of mechanical resistance.
- Increased resistance to aggressive sulfate ions during plug and subsequently either in water having a SO_4 ion concentration $\geq 1,500$ mg/l or in soils having ion contents $SO_4 \geq 1.2\%$.
- Works at sea.

Mechanical and Physical Attributes

Initial setting time - (min)	≥ 60
Soundness (Expansion) - (mm)	≤ 5
Early strength (2 days) - (MPa)	≥ 20
Final strength (28 days) - (MPa)	≥ 42.5

Compression Mechanical Strength



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Chemical Attributes

Sulfate content (SO ₃)	≤ 3.0%
Chloride content (Cl)	≤ 0.1%
Loss on ignition (LOI)	≤ 5.0%
Insoluble residue (IR)	≤ 0.75%
Magnesia (MgO)	≤ 3.0%
Suffers in the state of sulphide S	≤ 0.2%
Alumina (Al ₂ O ₃)	≤ 8.0%
Tricalcium aluminate (C ₃ A)	≤ 3%
C ₄ AF + 2 C ₃ A	≤ 20%
C ₃ A + 0,27 C ₃ S	≤ 23.5%

Caution measures

- With **dosage** and the **water/cement ratio**.
- Durant le durcissement du béton, il faut le **maintenir humide** et éviter sa dessiccation.
- During the curing process, concrete must be **kept moist** and prevent its drying.