

# CEM I 52,5 R-SR 3

Sulfate Resistant Portland Cement  
UNE-EN 197-1 CEM I 52,5 R-SR 3



Cement intended for use in reinforced or prestressed concrete, as well as concrete with high resistance, both initial and final. Particularly suitable for use in chemically aggressive environments, when special durability is required against the aggressiveness of sulfates or seawater.

## Composition

The UNE-EN 197-1 standard indicates that the main and minor components of this cement, as well as their proportions by mass, will be those indicated in the following table:

Components	(%) <sup>(1)</sup>
Clínker	95-100
Minor components <sup>(2)</sup>	0-5

(1) The values in the table refer to the sum of the main and minor additional constituents.

(2) Minor additional constituents are specially selected, inorganic natural mineral materials, inorganic mineral materials derived from the clinker production process or main constituents unless they are included as main constituents in the cement

## Mechanical and physical requirements.

The mechanical and physical requirements specified by EN 197-1 for these cements are:

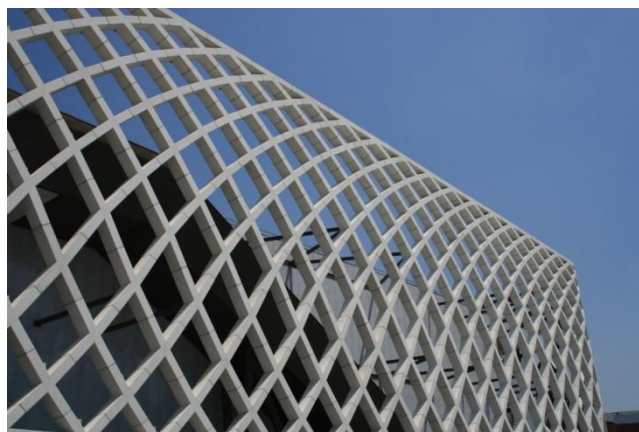
Compression strength (MPa)		Initial setting time (min)	Soudness (Expansion) (mm)
Early (2 days)	Standard (28 days)		
≥ 30	≥ 52,5	≥ 45	≤ 10

## Chemical Requirements.

The chemical requirements specified by EN 197-1 for these cements are:

Property	Requirements
Loss on ignition	≤ 5,0 %
Insoluble residue	≤ 5,0 %
Sulphate content (SO <sub>3</sub> )	≤ 3,5 %
Chloride content (Cl <sup>-</sup> )	≤ 0,10%
C <sub>3</sub> A en clínker	≤ 3,0 %

This cement has the AENOR product N mark that guarantees compliance with Cr (VI) as well as higher quality vs the minimum required in the standard.



## Uses and applications

As a general rule, this cement is indicated for:

- Concrete in chemically aggressive environments, particularly when sulfates are present and marine.
- Reinforced and prestressed concrete
- Concrete in precast elements.
- High resistance concrete.
- When fast stripping and stripping is required.
- Grouts for injection in anchors, micropiles or land improvements, with or without sulfates.

## Additional applications

You can have more information about the uses and applications of this cement in the annex 8 of the Spanish Instrucción RC and in the Structural Code.

## Storage

The cement must be stored in conditions that isolate it of the humidity. In the case of bag cement it must be piled up on pallets and will be conserved in covered zones, ventilated and protected of the direct exposure to the sun or rain.

In the case of cement in bulk it is recommended storage it in watertight silos.