

SULPHATE RESISTANT CEMENT



CEMENT FOR WORK IN HIGH SULFATE ENVIRONMENTS. HIS PERFORMANCES GIVE IT A PROPER USE FOR READY-MIXED CONCRETE DEVELOPMENT IN EMPLOYMENT AND PRECAST ELEMENTS IN AGGRESSIVE ENVIRONMENTS.

1 - STANDARDS AND SPECIFICATIONS :

The Tunisian standard NT 47.01/NT 47.26.

The european standard : EN 197-1 : 2011

2 - PROPERTIES :

◆ High Sulphate and Seawater Resistant:

The limited C3A value $\leq 3\%$ ensures maximum resistance to attack sulfated parcel and seawater.

◆ High mechanical strength :

Short-term resistances values (2-7 days) and those commons (28 days) allow the obtaining of a high strength concrete.

6 - COMPONENTS :

◆ Below constituents used without consideration of gypsum.

Limestone	Clinker
$\leq 5\%$	95-100

NB : Gypsum content $\leq 5\%$

7 - CHIMICAL CHARACTERISTICS AND MINERALOGICAL :

C3A	C4AF+2C3A	PF	RI	MgO	SO3	CI
$\leq 3\%$	$\leq 20\%$	$\leq 5\%$	$\leq 0.75\%$	$\leq 5\%$	$\leq 3\%$	$\leq 0.1\%$

8 - PHYSICAL AND MECHANICAL CHARACTERISTICS :

Starting setting time	≥ 180 min
Stability	≤ 10 mm
Strenght 28 days	≥ 42.5 MPa et ≤ 62.5 MPa
Early strenght (2 days)	> 20 MPa
Blaine Specific Surface area SSB	≥ 3000 cm ² /g

◆ Low alkaline content :

This characteristic allows the ability to be used with potentially reactive aggregates before alkalis.

◆ Limited SSB- Blaine :

Allows the development of a concrete with a small amount of water to maintain its plasticity and reduce the risk of shrinkage.

3 - PACKAGING :

◆ Bag of 50 Kg on the pallets or / and flatbed truck .

◆ Bulk.

4 - APPLICATIONS :

◆ Slurry tanks.

◆ Aquaculture.

◆ Civil engineering works (ground gypsum, salt water, sewage water, sewers, ports ...).

◆ Work terrain.

◆ Works in pure water.

◆ Great works (dam, etc. ...).

◆ Light Concrete.

◆ Prefabricated- Precast concrete.

◆ Prestressed concrete.

5 - CAUTIONS FOR IMPLEMENTATION :

◆ Respect the dosages according to the type of structure.

◆ Use clean water, unsalted and unsweetened.

◆ Use suitable, clean aggregates for making concrete and mortar.