



Coromandel King PPC blended cement has ingredients like Amorphous Silica which reacts with calcium hydroxide to form additional strength making the concrete strength grow in time.

Coromandel King PPC has been designed to give your building durability. Research over the years have proved that concrete with Coromandel King achieves significantly higher long term strength, low heat hydration, low water demand, higher workability and resistance to Sulphate and Chloride attacks.

ADVANTAGES

- Significantly higher long term strength.
- Low heat of hydration.
- Low water demand.
- Higher workability.
- Low permeability and porosity.
- Resistance to sulphate and chloride attacks.
- Reduced bleeding.
- Pore refinement leading to improved density of concrete.
- Enhanced durability.

APPLICATIONS

- Residential and commercial buildings .
- Industrial structures.
- Mass concrete work.
- Marine works.
- Suitable for wide range of applications including masonry applications.

Sl.No.	Requirements/Characteristics	Specified value	Test results obtained
PHYSICAL REQUIREMENTS			
1	Fineness (By Blaines apparatus)	Not less than 300 m ² / kg	350m ² /kg
2	Soundness		
	a) Le–chatelier method	Not more than 10 mm	2.0
	b) Autoclave test	Not more than 0.8 %	0.01
3	Setting time		
	a) Initial setting time in minutes	Not less than 30	160
	b) Final setting time in minutes	Not more than 600	240
4	Compressive strength		
	a) 72 +/- 1 hour	Not less than 16 Mpa	24
	b) 168 +/- 2 hours	Not less than 22 Mpa	34
	c) 672 +/- 4 hours	Not less than 33 Mpa	48
5	Drying shrinkage %	Not more than 0.15	0.004
CHEMICAL REQUIREMENTS			
1	Insoluble residue (% by mass)	Not more than $x+4 (100 - x) / 100$	28
2	Magnesia (% by mass)	Not more than 6.0	1.08
3	SO ₃	Not more than 3.5	2.55
4	Total loss on ignition (% by mass)	Not more than 5.0	1.46
5	Total chloride content (% by mass)	Not more than 0.10	0.01

The above cement complies with the requirements of IS : 1489 – (Part 1) 2015 for Portland Pozzolana Cement.



Coromandel Super King – designed for concrete is a cement produced by inter – grinding high quality clinker with reactive silica and gypsum using next generation grinding technology. In ordinary cements, water reacts with calcium hydroxide to form calcium bicarbonates which leaches out of the concrete leaving behind voids / pores which reduces strength of concrete. Coromandel Super King DFC has ingredients like amorphous silica which reacts with calcium hydroxide to form additional strength making the concrete strength grow in time.

Coromandel Super King DFC has been designed to give you building durability. Research over the years has proved that concrete with Coromandel Super King DFC achieves the following benefits.

ADVANTAGES

- Significantly higher long term strength.
- Low heat of hydration.
- Low water demand.
- Higher workability.
- Low permeability and porosity.
- Resistance to sulphate and chloride attacks.
- Reduced bleeding.
- Core refinement leading to improved density of concrete.
- Enhanced durability.

APPLICATIONS

- Residential and commercial buildings.
- Industrial structures.
- Mass concrete work.
- Marine works.
- Suitable for wide range of applications.

S.No.	Particulars	UOM	Test Result	Requirements of IS 1489 (Part 1) : 1991 (Flyash Based)
CHEMICAL REQUIREMENTS				
1	Loss On Ignition (LOI)	% by Mass	1.25	Maximum 5.0
2	Insoluble Residue (IR)	% by Mass	24	$\frac{\text{Max. } x + 4.0(100 - x)}{100}$
3	Sulphuric Anhydride (SO ₃)	% by Mass	2.21	Maximum 3.0
4	Magnesia (MgO)	% by Mass	1.50	Maximum 6.0
5	Alkalies as Na ₂ O	% by Mass	0.44	Maximum 0.6
6	Total Chloride Content (Cl)	% by Mass	0.012	Maximum 0.1
PHYSICAL REQUIREMENTS				
1	Fineness	m ² /Kg	385	Minimum 300
2	Normal Consistency	%	29.50	
3	Setting Time			
	a. Initial	Minutes	160	Minimum 30
	b. Final	Minutes	250	Maximum 600
4	Soundness			
	a. Le-Chatlier Expansion	mm	1.00	Maximum 10
	b. Autoclave Expansion	%	0.021	Maximum 0.8
5	Compressive Strength			
	01 Day	MPa	15.00	
	a. 3 Days (72 + 1 hr)	MPa	25.8	Minimum 16
	b. 7 Days (168 + 2 hr)	MPa	34.0	Minimum 22
	c. 28 Days (672 + 4 hr)	MPa	52	Minimum 33
6	Drying Shrinkage	%	In Progress	Maximum 0.15