



The India Cements Ltd

BUILDING A STRONGER INDIA



PRODUCT PORTFOLIO

PPC | SPECIAL CEMENT | OPC

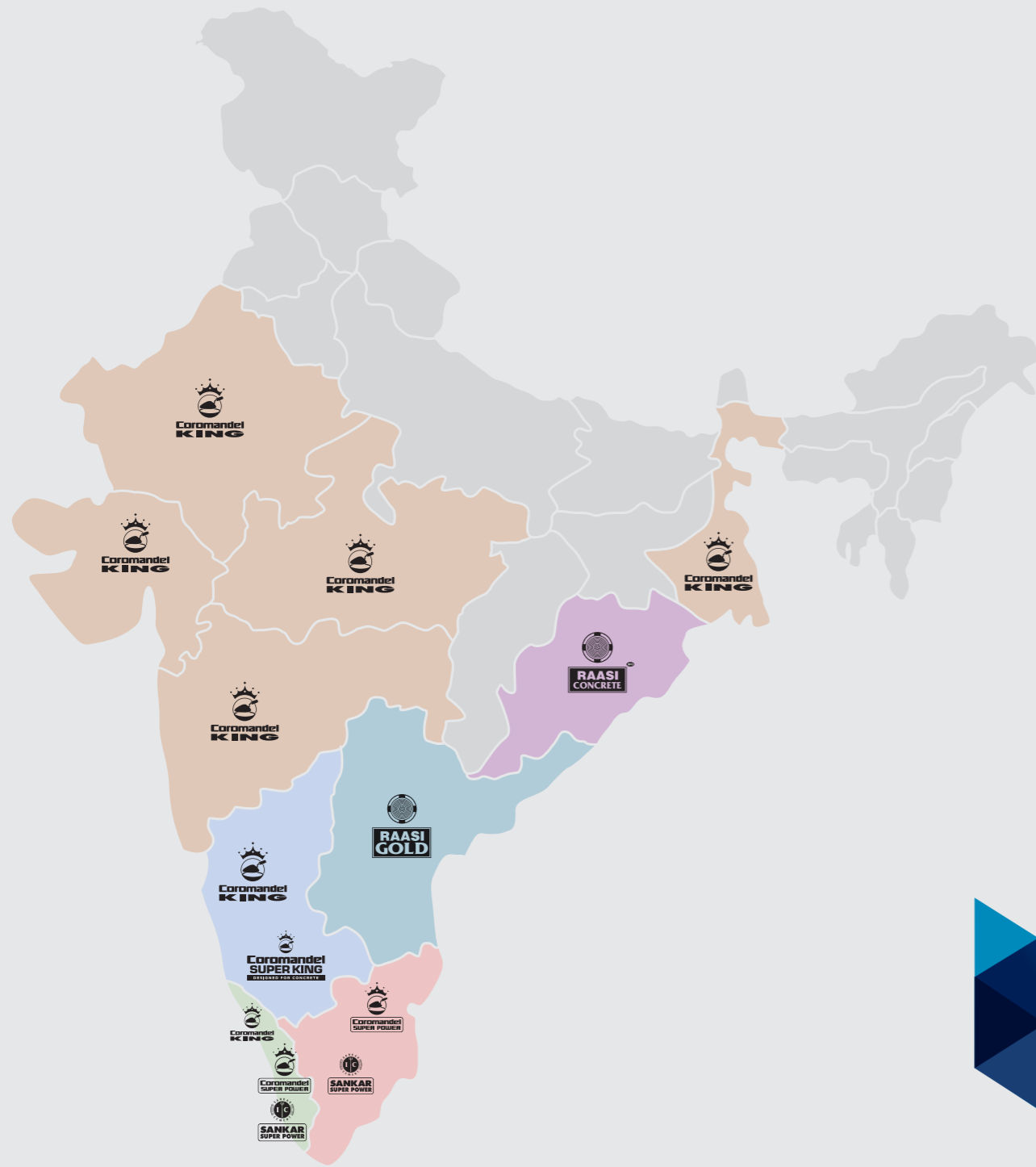


THE INDIA CEMENTS LIMITED

South India's No. 1 cement company has played a vital role in the booming infrastructure and construction growth in India for the past 70 years.

With a capacity of over 16 million tonnes per annum, 8 cement plants and 2 grinding units spread across the nation & backed by R&D center recognized by DST, Govt of India. India Cements is committed not just to the creation of stronger buildings, but to the emergence of a stronger India.

MARKETS & BRANDS



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- TAMIL NADU – SANKAR SUPER POWER, COROMANDEL SUPER POWER
 KERALA – SANKAR SUPER POWER, COROMANDEL SUPER POWER, COROMANDEL KING
 KARNATAKA – COROMANDEL KING, COROMANDEL SUPER KING
- ANDHRA PRADESH – RAASI GOLD
 MAHARASHTRA & GUJARAT – COROMANDEL KING
 ODISHA – RAASI DFO CONCRETE
- RAJASTHAN – COROMANDEL KING
 WEST BENGAL – COROMANDEL KING
 MADHYA PRADESH – COROMANDEL KING

*Brands Specific to each geographic region

PORTLAND POZZOLANA CEMENTS





Portland pozzolona 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.

Sankar Super Power is a six decade brand with emotional values providing trust and confidence for its consumers over generations. Strong houses built with Sankar Super Power created peaceful homes. The most popular brand across TN and Kerala.

"In Sankar Super Power, the calcium hydroxide reacts with reactive silica to form additional calcium silicate hydrate (CSH gel). This fills the pores & voids in the cement paste matrix, thereby enhancing the strength & durability of Concrete".

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 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.



Raasi Gold 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.

Raasi Gold has ingredients like amorphous silica which reacts with calcium hydroxide to form additional strength making the concrete strength grow in time. Raasi Gold has been designed to give you building durability. Research over the years has proved that concrete with Raasi God 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.
- 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.



Raasi Concrete – Designed For Odisha 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.

Raasi Concrete PPC has ingredients like amorphous silica which reacts with calcium hydroxide to form additional strength making the concrete strength grow in time. Raasi Concrete PPC has been designed to give you building durability. Research over the years has proved that concrete with Raasi Concrete 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.
- 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.

S.No.	Particulars	Test Result	Requirements of IS 1489 (Part 1):1991 (Flyash Based)
CHEMICAL REQUIREMENTS			
1	Loss On Ignition (%)	2.24	5.0 Maximum
2	Magnesia (% by mass)	1.12	6.0 Maximum
3	Sulphuric Anhydride (% by mass)	2.64	3.0 Maximum
4	Insoluble Residue (% by mass)	23	$X + (4.0(100-X)) / 100$ Max.
5	Percentage of Pozzolana added (X)	26%	15 to 35 %
6	Chloride Content (%)	0.0168	0.05 Maximum
PHYSICAL REQUIREMENTS			
1	Fineness (m ² /Kg)	372	300 Minimum
2	Setting Time (minutes)		
	(a) Initial	150	30 Minimum
	(b) Final	190	600 Maximum
3	Soundness		
	(a) Le-Chatlier Expansion (mm)	0.5	10.0 Maximum
	(b) Autoclave Expansion (%)	0.007	0.8 Maximum
4	Compressive Strength		
	3 Day	23.4	16.0 Minimum
	7 Days	32.8	22.0 Minimum
	28 Days	51.0	33.0 Minimum
5	Drying Shrinkage (%)	0.015	Not more than 0.15

The Cement complies with IS 1489 – (Part 1) 1991 for Portland Pozzolana Cement (Flyash based).



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



**SPECIAL
CEMENTS**





COROMANDEL OIL WELL CEMENT

Oil Well cements are used in the form of slurries in conditions encountered in drilling bore hole for oil exploration- not used for structural concrete although it will easily meet the requirement of OPC (Conforms to API – Class – G).

CLASS G & H

Features:

- C3S content of 48% to 65% depending on Class.
- C3A content of 0% to 8% depending on Class.

Benefits:

- Excellent retarder response for higher economic benefit in mix design.
- Low free fluids for cement integrity and long term performance.
- High sulfate resistance for high durability under harsh conditions.
- Non-Settling by Uniformity in Rheology.
- Consistent quality for slurry design portability.



COROMANDEL SLEEPER CEMENT

Concrete Sleepers are popularly used as a replacement to wooden railway sleepers, to withstand better the dynamic loads due to heavy train traffic and high speed trains.

These Concrete Sleepers are now replacing the other types of sleepers except in some special circumstances like bridges, etc. where wooden sleepers are used. Mono Block Concrete Sleepers and Twin Block Concrete sleepers are the predominant products of Coromandel King Sleeper Cement. Every sleeper manufactured with Coromandel King Sleeper Cement has an estimated track life of 50 years. They can withstand the unfavorable climatic conditions, temperature, humidity, fungus or insect attack.



COROMANDEL SRPC CEMENT

Coromandel SRPC is a superior OPC cement with special properties to fight against Sulphur attack. This unique property makes it to stand out in comparison to ordinary sulphur resistant cement. Its special property of sulphate resistance coupled with high strength breaks the myth that SRPC cannot be used for higher grades of concrete.

QUALITY	BIS	COROMANDEL KING SRPC
C ₃ A	<5%	3.90%
Le Chatelier Expansion	10.0mm	1.0mm
Chloride % by mass	0.1 max	0.016
MgO	6%	1%
Compressive strength (mpa)		
3 days	10.0	31.0
7 days	16.0	42.0
28 days	33.0	53.0

*For more information kindly check separate product brochure



**ORDINARY
PORTLAND
CEMENTS**



Ordinary Portland Cement (OPC 43 N Grade) is a premium quality product manufactured from best quality limestone having latest state of the art technology, ensures upto 20 Mpa in just one day and in 28 days the compressive strength reaches > 45 Mpa. In addition to this, Ordinary Portland Cement ensures high degree of consistency and assured superior quality in all bags.

ADVANTAGES

- Development of very high compressive strength in early stages helps in early de-setting.
- Superior resistance to sulphate attack due to less C3A.
- Low alkali content in cement provides protection against alkali aggregate reaction.
- Optimised particle size distribution.
- High early strength facilitates speedy construction.
- Feasible for economical concrete mix design.

- Superior quality ensures substantial savings in cement consumption.
- Durable concrete.

APPLICATIONS

- Suitable for commercial, residential, industrial structures, highways, runways, bridges and high rise buildings.
- Recommended for all types of RCC structures, concrete blocks, paver blocks, electrical poles, etc.
- Pre-stressed concrete.

Sl. No.	Requirements/Characteristics	Specified value	Test results obtained
PHYSICAL REQUIREMENTS			
1	Fineness (by Blaines apparatus)	Not less than 225 m ² /kg	305
2	Soundness		
	a) Le Chatelier method	Not more than 10 mm	1.0
	b) Autoclave test	Not more than 0.8 %	0.02
3	Setting time		
	a) Initial setting time in minutes	Not less than 30	140
	b) Final setting time in minutes	Not more than 600	220
4	Compressive strength		
	a) 72 + / - 1 hour (3 days)	Not less than 27 MPa	35
	b) 168 + / - 2 hours (7 days)	Not less than 37 MPa	45
	c) 672 + / - 4 hours (28 days)	Min-43 MPa, Max-58 MPa	54
CHEMICAL REQUIREMENTS			
1	Loss on ignition %	Not more than 4.0 %	1.58
2	Silica %	-	20.9%
3	Alumina %	-	5.0%
4	Iron oxide %	-	4.9%
5	Lime %	-	62.55
6	Magnesia %	Not more than 6.0 %	1.08
7	Insoluble residue %	Not more than 4.0 %	0.86
8	Sulphuric anhydride	Not more than 3.5 %	2.82
9	Total chloride content %	Not more than 0.10 %	0.01
10	Net Proportion of Lime to Silica, Alumina and Iron oxide	0.80 to 1.02 %	0.90
11	Net proportion of Alumina to Iron oxide	Not less than 0.66 %	1.22



Ordinary Portland Cement (OPC 53 N Grade) is a premium quality product manufactured from best quality limestone having latest state of the art technology, ensures upto 20 Mpa in just one day and in 28 days the compressive strength reaches > 55 Mpa. In addition to this, Ordinary Portland Cement ensures high degree of consistency and assured superior quality in all bags.

ADVANTAGES

- Development of very high compressive strength in early stages helps in early de-setting.
- Superior resistance to sulphate attack due to less C3A.
- Low alkali content in cement provides protection against alkali aggregate reaction.
- Optimised particle size distribution.
- High early strength facilitates speedy construction.
- Feasible for economical concrete mix design.

- Superior quality ensures substantial savings in cement consumption.
- Durable concrete.

APPLICATIONS

- Suitable for commercial, residential, industrial structures, highways, runways, bridges and high rise buildings.
- Recommended for all types of RCC structures, concrete blocks, paver blocks, electrical poles, etc.
- Pre-stressed concrete.

Sl. No.	Requirements/Characteristics	Specified value	Test results obtained
PHYSICAL REQUIREMENTS			
1	Fineness (by Blaines apparatus)	Not less than 225 m ² /kg	325
2	Soundness		
	a) Le Chatelier method	Not more than 10 mm	1.0
	b) Autoclave test	Not more than 0.8 %	0.02
3	Setting time		
	a) Initial setting time in minutes	Not less than 30	120
	b) Final setting time in minutes	Not more than 600	190
4	Compressive strength		
	a) 72 + / - 1 hour (3 days)	Not less than 27 MPa	35
	b) 168 + / - 2 hours (7 days)	Not less than 37 MPa	45
	c) 672 + / - 4 hours (28 days)	Not less than 53 MPa	58
CHEMICAL REQUIREMENTS			
1	Loss on ignition %	Not more than 4.0 %	1.58
2	Silica %	-	20.9%
3	Alumina %	-	5.0%
4	Iron oxide %	-	4.9%
5	Lime %	-	62.55
6	Magnesia %	Not more than 6.0 %	1.08
7	Insoluble residue %	Not more than 4.0 %	0.86
8	Sulphuric anhydride	Not more than 3.5 %	2.82
9	Total chloride content %	Not more than 0.10 %	0.01
10	Net Proportion of Lime to Silica, Alumina and Iron oxide	0.80 to 1.02 %	0.90
11	Net proportion of Alumina to Iron oxide	Not less than 0.66 %	1.22

INDIA CEMENTS ACROSS INDIA



● GRINDING UNITS ◆ PLANT LOCATIONS



The India Cements Limited

Registered Office: "DHUN Building", 827, Anna Salai, Chennai – 600 002.

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