

**Binani**

BRAJ BINANI GROUP

# BINANI CEMENT LIMITED

(AN ISO 9001, 14001 & OHSAS 18001 CERTIFIED CO.)

**BINANIGRAM, PINDWARA**

R/15-21

## TEST CERTIFICATE

### Ordinary Portland Cement "43 GRADE"

IS: 8112



CM/L-8214160

PARTICULARS	TEST RESULTS	REQUIREMENTS AS PER IS-8112-2013
<b>Chemical Requirements :</b>		
1. Lime Saturation Factor $\frac{\text{CaO}-0.7\text{SO}_3}{(2.8\text{SiO}_2+1.2\text{Al}_2\text{O}_3+0.65\text{Fe}_2\text{O}_3)}$	0.97	0.66 to 1.02
2. Ratio of % of Alumina to that of Iron Oxide (% $\text{Al}_2\text{O}_3$ / % $\text{Fe}_2\text{O}_3$ )	1.76	0.66 min
3. Insoluble Residue (% by Mass)	2.62	4.00 max
4. Magnesia (% by Mass)	1.84	6.00 max
5. Sulphuric Anhydride (% by Mass)	2.06	3.50 max
6. Total Loss on Ignition (%)	2.47	5.00 max
7. Total Chlorides (%)	0.020	0.10 max
<b>Physical Requirements</b>		
1. Consistency (%)	28.25	
2. Fineness ( $\text{m}^2/\text{Kg}$ )	298	225 min.
3. Setting Time (Minutes)		
(a) Initial	125	30 min
(b) Final	175	600 max.
4. Soundness		
(a) Le. Chatelier (mm)	1.0	10.0 max
(b) Autoclave (%)	0.11	0.8 max
5. Compressive Strength (MPa)		
(a) $72 \pm 1$ h (3 days)	37	23 min
(b) $168 \pm 2$ h (7 days)	48	33 min
(c) $672 \pm 4$ h (28 days)	57	43 min

ABOVE CEMENT COMPLIES WITH THE REQUIREMENTS OF IS-8112 : : FOR ORDINARY PORTLAND CEMENT "43 GRADE" 2013

DATE OF DESPATCH 01/04/2008

WEEK NO. : 14

CHECKED BY : .....

BINANI CEMENT LIMITED

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**TEST CERTIFICATE**

**PORTLAND POZZOLANA CEMENT**



PARTICULARS	TEST RESULTS	REQUIREMENTS AS PER IS-1489 (Part 1):1991
<i>Chemical Requirements :</i>		
1.Insoluble Residue (% by Mass)	20.81	X+ 4.0(100-X)/100 max
2.Magnesia (% by Mass)	1.38	6.00 max
3.Sulphuric Anhydride (% by Mass)	2.09	3.00 max
4.Total Loss on Ignition(%)	2.76	5.00 max
5.Total Chlorides (%)	0.016	0.10 max
<i>Physical Requirements</i>		
1. Consistency (%)	31.50	
2. Fineness (m <sup>2</sup> / Kg)	355	300 min.
3. Setting Time (Minutes)		
(a) Initial	135	30 min
(b) Final	185	600 max.
4. Soundness		
(a) Le-Chatelier (mm)	0.5	10.0 max
(b) Autoclave (%)	0.12	0.8 max
5. Compressive Strength (MPa)		
(a) 72 ± 1 h (3 days)	28	16 min
(b) 168 ± 2 h (7 days)	38	22 min
(c) 672 ± 4 h (28 days)	54	33 min
6. Drying Shrinkage (%)	0.00	0.15 max.
7. Declared % Fly Ash consumption	25	

ABOVE CEMENT COMPLIES WITH THE REQUIREMENTS OF IS-1489 ( PART - 1 ) : 1991 PORTLAND POZZOLANA CEMENT

DATE OF DESPATCH 01/04/2009

WEEK NO. : 13

CHECKED BY : .....

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# BINANI CEMENT LIMITED

(AN ISO 9001, 14001 & OHSAS 18001 CERTIFIED CO.)

BINANIGRAM, PINDWARA

R/15-23

## TEST CERTIFICATE

### PORTLAND POZZOLANA CEMENT

IS : 1489



Part -1  
CM/L-8492592

PARTICULARS	TEST RESULTS	REQUIREMENTS AS PER IS-1489 (Part 1):1991
<b>Chemical Requirements :</b>		
1.Insoluble Residue (% by Mass)	24.10	$X + 4.0(100-X)/100$ max
2.Magnesia (% by Mass)	1.22	6.00 max
3.Sulphuric Anhydride (% by Mass)	2.08	3.00 max
4.Total Loss on Ignition(%)	2.52	5.00 max
5.Total Chlorides (%)	0.020	0.10 max
<b>Physical Requirements</b>		
1. Consistency (%)	30.50	
2. Fineness (m <sup>2</sup> / Kg)	352	300 min.
3. Setting Time (Minutes)		
(a) Initial	135	30 min
(b) Final	195	600 max.
4. Soundness		
(a) Le-Chatelier (mm)	1.0	10.0 max
(b) Autoclave (%)	0.09	0.8 max
5. Compressive Strength (MPa)		
(a) 72 ± 1 h (3 days)	28	16 min
(b) 168 ± 2 h (7 days)	39	22 min
(c) 672 ± 4 h (28 days)	53	33 min
6. Drying Shrinkage (%)	0.06	0.15 max.
7. Declared % Fly Ash consumption	25	

ABOVE CEMENT COMPLIES WITH THE REQUIREMENTS OF IS-1489 ( PART - 1 ) : 1991 PORTLAND POZZOLANA CEMENT

DATE OF DESPATCH : 01/04/2008

WEEK NO. : 14

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(AN ISO 9001, 14001 &amp; OHSAS 18001 CERTIFIED CO.)

**BINANIGRAM, PINDWARA**

R/15-22

**TEST CERTIFICATE****Ordinary Portland Cement  
"53 GRADE"**

IS : 12269



CM/L-8214059

PARTICULARS	TEST RESULTS	REQUIREMENTS AS PER IS-12269-87
<b>Chemical Requirements :</b>		
1. Lime Saturation Factor $\frac{\text{CaO}-0.7\text{SO}_3}{2.8\text{SiO}_2+1.2\text{Al}_2\text{O}_3+0.65\text{Fe}_2\text{O}_3}$	0.98	0.8 to 1.02
2. Ratio of % of Alumina to that of Iron Oxide (% $\text{Al}_2\text{O}_3$ / % $\text{Fe}_2\text{O}_3$ )	1.76	0.66 min
3. Insoluble Residue (% by Mass)	2.63	3.00 max
4. Magnesia (% by Mass)	1.88	6.00 max
5. Sulphuric Anhydride (% by Mass)	2.06	3.00 max
6. Total Loss on Ignition (%)	2.46	4.00 max
7. Total Chlorides (%)	0.019	0.10 max
<b>Physical Requirements</b>		
1. Consistency (%)	28.50	
2. Fineness (m <sup>2</sup> / Kg)	307	225 min.
3. Setting Time (Minutes)		
(a) Initial	130	30 min
(b) Final	180	600 max.
4. Soundness		
(a) Le.Chatelier (mm)	1.0	10.0 max
(b) Autoclave (%)	0.15	0.8 max
5. Compressive Strength (MPa)		
(a) 72 ± 1 h (3 days)	38	27 min
(b) 168 ± 2 h (7 days)	49	37 min
(c) 672 ± 4 h (28 days)	58	53 min

ABOVE CEMENT COMPLIES WITH THE REQUIREMENTS OF IS.12269 : 1987 FOR ORDINARY PORTLAND CEMENT "53 GRADE"

DATE OF DESPATCH : 01/04/2008

WEEK NO. : 14

CHECKED BY : .....

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