

## GHARIBWAL CEMENT LIMITED CHAKWAL

OPC PAIDAR CEMENT SAMPLE

Work Order No.725

INDIAN CEMENT STANDARD

CHARACTERISTICS	UNIT	RESULTS	<u>IS-8112-1989</u>		<u>IS-12269-1987</u>	
			43 GRADE		53 GRADE	

### CHEMICAL REQUIREMENTS

LOI (Loss on ignition)	%	1.74	MAX	5	MAX	4
IR (Insoluble Residue)	%	0.57	MAX	5	MAX	3
Mgo (Magnesia)	%	1.2	MAX	5	MAX	6
SO3 (Sulphuric Anhydride)	%	2.31	MAX	5	MAX	3
A/F (Alumina Iron Ratio)	RATIO	1.6	MIN	0.66	MIN	0.8
LSF(Lime Saturation Factor)	RATIO	0.95	MIN	0.66	MIN	0.66
			MAX	1.02	MAX	1.02
C3A (Tricalcium Aluminate)	%	8.89	NOT SPEPCIFIED		NOT SPEPCIFIED	
Total Alkalis as Na2O	%	0.58	NOT SPEPCIFIED		NOT SPEPCIFIED	
Total Chlorides	%	0.05	MAX	0.1	Max*	0.1
Total Chlorides					Max**	0.05
Performance Improver		0	MAX	5	MAX	5

### PHYSICAL REQUIREMENTS

Standard Consistency	%	29.5	NOT SPEPCIFIED		NOT SPEPCIFIED	
<u>Setting Time</u>						
Initial Time	Minutes	153	MIN	30	MIN	30
Final Time	Minutes	226	MAX	600	MAX	600
Fineness	M2/kg	288	MIN	225		
<u>Soundness</u>						
Le-chatlier's Expansion	mm	1	MAX	10	MAX	10
Autoclave Expansion	%	0.16	MAX	0.8	MAX	0.8
<u>Compressive Strength</u>						
3-Days	Mpa	35.1	MIN	23	MIN	27
7-Days	Mpa	45.6	MIN	33	MIN	37
28-Days	Mpa	54.16	MIN	43	MIN	53
<u>Temperature During Testing</u>	C	26	MIN	25	MIN	25
		27	MAX	29	MAX	29

Max\* Normal Concrete Sample

Max\*\* Prestressed Concrete Cement

18.11.08

  
 Munir A. Rana  
 DGM(CRDI)