

ENGINEERED FOR DURABILITY

TEST CERTIFICATE		Week No	39
ORDINARY PORTLAND CEMENT 53G		Year	2022
SAMPLE	RESULT OBTAINED	REQUIREMENT	
TEST TYPE	FROM TEST	IS : 269-2015	
PHYSICAL REQUIREMENTS			
1. Fineness -Blaine(M ² /Kg)	290	Not less than 225 M ² /Kg	
2.Soundness:			
A.Autoclave Expansion (%)	0.055	Not more than 0.8 %	
B.Le Chatelier Expansion (in mm)	1.00	Not more than 10 mm	
3.Setting Time (in minutes)			
A.Initial	145	Not less than 30 minutes	
B.Final	220	Not more than 600 minutes	
4.Compressive Strength (MPa)			
A.72 ± 1 hr.(3 days)	34.1	Not Less than 27 MPa	
B.168 ± 2 hr.(7 days)	45.1	Not Less than 37 MPa	
C.672 ± 4 hr.(28 days)	58.5	Not Less than 53 MPa	
CHEMICAL REQUIREMENTS			
1.Loss on Ignition (% by mass)	1.17	4 % Maximum	
2.Insoluble Residue (% by mass)	4.57	5 % Maximum	
3.Magnesium Oxide (MgO) (% by mass)	1.22	6.0 % Maximum	
4.Total Sulphur content calculated as (SO ₃) (% by mass)	2.84	3.5 % Maximum	
5.Chlorides (% by mass)	0.021	0.10 % Maximum	
6.Lime Saturation Factor			
<u>Cao - 0.7 So₃</u> (2.8 SiO ₂ + 1.2 AL ₂ O ₃ +0.65Fe ₂ O ₃)	0.86	0.80 to 1.02	
7.A/F (Al ₂ O ₃ / Fe ₂ O ₃)	1.37	0.66 Minimum	
8.Performance Improver Fly Ash (%)	5.00	5.0 % Maximum	
Water required for paste of standard consistency (%)		29.25	

The above cement complies with the requirements of IS 269 : 2015 For ORDINARY PORTLAND CEMENT 53G

Computer generated Report, hence Signature is not required

For BIS certification details see website bis.org.in

For Zuari Cement Ltd
MANAGER (QC)