



REPORT NO. 12121		ULR NO.
Issued To	:	hii
Letter REF. NO. & Date	:	45745475 & 2025-11-18
Sample Description	:	Cement, OPC-43, Make- Ultratech
Name of work	:	Avinash Kumar Jha

S.No.	Tests	Test Methods	Requirements as per IS 269:2015 With Amendment No. 1	Results	Conformity
<b>Discipline : Mechanical, Group : Buildings Materials</b>					
<b>Physical Requirements</b>					
1.	Consistency, %	IS 4031(P-4):1988	-		
2.	Density, g/cc	IS 4031(P-11):1988	-		
3.	Fineness, m <sup>2</sup> / kg	IS 4031(P-2):1999	225 Min.		
4.	Initial Setting Time, Minutes	IS 4031(P-5):1988	30 Min.		
5.	Final Setting Time, Minutes	IS 4031(P-5):1988	600 Max.		
6.	Soundness By Le-Chatelier Method, mm	IS 4031(P-3):1988	10 Max.		
7.	Soundness By Autoclave Test Method, %	IS 4031(P-3):1988	0.8 Max.		
8.	Compressive Strength at 3 Days (72±1 Hours), MPa	IS:4031(P-6):1988	23 Min.		
9.	Compressive Strength at 7 Days (168±2 Hours), MPa	IS 4031(P-6):1988	33 Min.		
10.	Compressive Strength at 28 Days (672±4 Hours), MPa	IS 4031(P-6):1988	43 - 58		
<b>Discipline : Chemical, Group : Building Material</b>					
<b>Chemical Requirements</b>					
1.	Ratio of % of lime to % of SiO <sub>2</sub> , Al <sub>2</sub> O <sub>3</sub> & Fe <sub>2</sub> O <sub>3</sub> as per formula ( CaO - 0.7SO <sub>3</sub> ) 2.8SiO <sub>2</sub> +1.2Al <sub>2</sub> O <sub>3</sub> +0.65 Fe <sub>2</sub> O <sub>3</sub>	IS 4032:1985	0.66 -1.02		



<b>REPORT NO. 12121</b>		<b>ULR NO.</b>	
<b>Issued To</b>	:	<b>hii</b>	<b>Date of Receipt</b> : <b>12-11-2025</b>
<b>Letter REF. NO. &amp; Date</b>	:	<b>45745475 &amp; 2025-11-18</b>	<b>Date of start of analysis</b> : <b>12-11-2025</b>
<b>Sample Description</b>	:	<b>Cement, OPC-43, Make- Ultratech</b>	<b>Date of completion of analysis</b> : <b>12-11-2025</b>
<b>Name of work</b>	:	<b>Avinash Kumar Jha</b>	<b>Date of issue</b> : <b>12-11-2025</b>

2.	Ratio of % of Alumina to that of Iron oxide	IS 4032:1985	0.66 Min.		
3.	Insoluble Residue, % by mass	IS 4032:1985	5.0 Max.		
4.	Magnesia as MgO, % by mass	IS 4032:1985	6.0 Max.		
5.	Total Sulphur Content Calculated as Sulphuric Anhydride (SO <sub>3</sub> ), % by mass	IS 4032:1985	3.5 Max.		
6.	Loss on Ignition. % by mass	IS 4032:1985	5.0 Max.		
7.	Chloride Content, % by mass	IS 4032:1985	0.1 Max. 0.05 Max. (For Prestressed Structures)		
8.	Alkali Content expressed as Sodium Oxide (Na <sub>2</sub> O+0.658 K <sub>2</sub> O), % by mass	IS 4032:1985	0.6 Max.		

**Analyst**