

Department: Laboratory (Chemical Lab)

Portland cement P42.5RMS,BTNa according to NL 53:99

Chemical Analysis			Physics Tests		
Tested Elements	Requirements	Results	Test	Requirements	Results
SiO <sub>2</sub>	Min20.00	20.06	Initial Set (min)	Min 60min	150
Al <sub>2</sub> O <sub>3</sub>	Max6.00	4.99	Final Set (h: min)		
Fe <sub>2</sub> O <sub>3</sub>	Max 6.00	3.54	False Set %		
CaO		63.61	Air Content %		
MgO	Max 4.00	0.87	Autoclave Expansion		
SO <sub>3</sub>	Max 3.50	2.61	Sulfate Expansion 14 days		
L.O.I.	Max 3.00	2.58	Water Expansion 14 days		
Na <sub>2</sub> O		0.13	Soundness "Le Chatelier"	Max 10.00	0.50
K <sub>2</sub> O		0.36	Blaine (cm <sup>2</sup> /g)	Min 2800	3161
Na <sub>2</sub> O + 0.658 x K <sub>2</sub> O	Max 0.6	0.36	Water Demand		27.00
Free Lime		1.30	Compressive Strength (N/mm <sup>2</sup> )	Requirements	Results
Cl <sup>-</sup>	Max 0.10	0.0050	1 day		
Insoluble Residue	Max 1.00	0.22	2 days	Min 12.5	18.27
Additives			3 days		
C <sub>3</sub> S (calculated)		58.54	7 days		
C <sub>2</sub> S (calculated)		13.23	28 days	42.5 – 62.5	55.03
C <sub>3</sub> A (calculated)	Max 8.00	7.23	Heat of Hydration (l/g)	Max 280	224.0
C <sub>4</sub> AF (calculated)		10.77			
LSF (calculated)		95.31			

Remarks


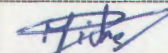
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