

Department: Laboratory (Chemical Lab)

Portland Cement PA-L 42.5 According to NL 53:99

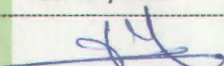
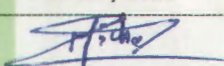
Chemical Analysis			Physics Tests		
Tested Elements	Requirements	Results	Test	Requirements	Results
SiO ₂		18.44	Initial Set (min)	Min 75 min	154
Al ₂ O ₃		4.93	Final Set (min)		
Fe ₂ O ₃		3.35	False Set %		
CaO		62.57	Air Content %		
MgO		0.84	Autoclave Expansion		
SO ₃	Max 3.50	2.41	Sulfate Expansion 14 days		
L.O.I.		5.68	Water Expansion 14 days		
Na ₂ O		0.10	Soundness "Le Chatelier"(mm)	Max 10.00	1.50
K ₂ O		0.35	Blaine (cm ² /g)	Min 3000	3954
Na ₂ O + 0.658 x K ₂ O		0.36	Water Demand		27.00
Free Lime		1.06	Compressive Strength (N/mm ²)	Requirements	Results
Cl ⁻	Max 0.10	0.0051	1 day		
Insoluble Residue			2 days	Min 12.50	19.40
Additives		13.07	3 days		
C ₃ S (calculated)		69.79	7 days		33.25
C ₂ S (calculated)		0.22	28 days	42.5-62.5	52.54
C ₃ A (calculated)		7.40	Heat of Hydration (J/g)		
C ₄ AF (calculated)		10.19			
LSF (calculated)					

Remarks

.....

.....

.....

Chemical Department		Physics Department			
Realized By:	Viviane Yammine	Realized By:	Micheal Zakhem	Approved By:	Jean Sassi
Job Title:	Senior Technician	Job Title:	P&C Lab Foreman	Job Title:	Laboratory Manager
Date:	February 2015	Date:	February 2015	Date:	February 2015
Signature:		Signature:		Signature:	