



FARS & KHUZESTAN CEMENT HOLDING

F08/6

BOJNOURD CEMENT CO.

QUALITY CONTROL & LABORATORY DEPARTMENT



Passport of Quality

Product	Portland Composite Cement A 32,5 , CEM II/A-M (P-L) 32,5 R , M300
Standard of Sample	INSO 17518-1, EN 197-1, GOST 10178-85, GOST 30515-2013, GOST 31108-2016
Date of Report	July 2024

Chemical Analysis	Result	Standard Limitation ISIRI 11571-1	Standard Limitation EN 197-1	Standard Limitation GOST 10178-85	Physical Analysis	Result	Standard Limitation ISIRI 11571-1	Standard Limitation EN 197-1	Standard Limitation GOST 10178-85	
SiO ₂ (%)	20.86	*	*	*	Specific Gravity (ton/m ³)		3.019	*	*	*
Al ₂ O ₃ (%)	4.19	*	*	*	Normal Consistency (%)		23.5	*	*	*
Fe ₂ O ₃ (%)	3.27	*	*	*	Setting Time Vicat test	Initial	160	Min 75	Min 75	Min 45
CaO (%)	64.25	*	*	*		Final	03:00	*	*	Max 10:00
MgO (%)	2.03	Max 5	*	Max 5	Soundness Expansion					
Na ₂ O (%)	0.33	*	*	*	Autoclave exp. (%)		0.03	Max 0.80	*	*
K ₂ O (%)	0.68	*	*	*	Le Chatelier exp. (mm)		1	Max 10	Max 10	*
SO ₃ (%)	2.58	Max 3.5	Max 3.5	Max 3.5	Sulfate Resistance 14 days exp.(%)		*	*	*	*
					Fineness					
Insoluble Residue (%)	0.73	*	*	*	Specific Surface, Blaine (cm ² /g)		3470	Min 3000	*	Min 2800
Loss on Ignition , Optional (%)	2.36	Max 9	*	*	Retained on 45 μ Sieve (%)		12.4	*	*	80 μ Max 15
Free Lime (F.CaO) (%)	1.5	*	*	*	Strength Results, Compressive Strength (kg/cm ²)					
Chloride (%)	0.021	Max 0.10	Max 0.10	*	1 Day		*	*	*	*
Equivalent Alkalies (%) (Na ₂ O+0.658*K ₂ O), Optional	0.78	*	*	Max 1.20	2 Days		231	*	Min 100	*
Lime Saturation Factor (LSF)	*	*	*	*	3 Days		*	*	*	*
Minerological Composition (Bouge Relations)					7 Days		352	Min 160	*	*
C3S , Tricalcium Silicate (%)	*	*	*	*	28 Days		457	Min 325	Min 325 Max 525	Min 300
C2S , Dicalcium Silicate (%)	*	*	*	*	Heat of Hydration (cal/g), Optional					
C3A ,Tricalcium Aluminate (%)	*	*	*	*	7 Days		*	*	*	*
2C3A + C4AF	*	*	*	*	28 Days		*	*	*	*

Remarks :

Quality Control and Laboratory Management

Lotfi



Plant Management

S.J. Mirzazadeh

S.J. Mirzazadeh

Address Office : No.16 , 14 Mir Emad Ave , Tehran , Iran Tel: +982188752404 Fax: +982188777742

Address Factory : km 37th Road Bojnourd Mashad ,Iran, Po.Box:1116 Tel: +985832231950-3 Fax: +985832230666

info@bojnourdcement.com

www.bojnourdcement.com



7003941788