

Code : 540 F 01 03 A

SOUFIAN CEMENT LABORATORY /  
TESTING RESULT REPORT /آزمایشگاه سیمان صوفیان  
گزارش نتایج آزمون

Sample Type : CEM I 42.5 N-SR 5 / Type V

Testing Date :

Sample Code :

Physical Analyst :

Sampling Date :

Chemical Analyst :

Sampling Point :

Report Date :

Customer :

Report No.:

Physical Test Conditions :

Temp. (°C):

Humid. (%):

Chemical Test Conditions :

Temp. (°C):

Humid. (%):

#	Chemical & Physical Measurands	Units	Test Method	ISIRI 389	EN 197-1	Sample analysis		
Chemical Analysis	SiO <sub>2</sub>	%	ASTM C114:2011b	-	-	21.50 ± 0.50		
	Al <sub>2</sub> O <sub>3</sub>	%	ASTM C114:2011b	-	-	4.40 ± 0.30		
	Fe <sub>2</sub> O <sub>3</sub>	%	ASTM C114:2011b	-	-	4.51 ± 0.20		
	CaO	%	ASTM C114:2011b	-	-	63.55 ± 0.50		
	MgO	%	ASTM C114:2011b	≤ 5.00	≤ 5.00	2.34 ± 0.20		
	LOI	%	EN 196-2:2013	≤ 3.00	≤ 5.00	0.85 ± 0.20		
	SO <sub>3</sub>	%	EN 196-2:2013	-	≤ 3.50	2.26 ± 0.20		
	IR	%	EN 196-2:2013	≤ 0.75	≤ 5.00	0.60 ± 0.10		
	Na <sub>2</sub> O	%	EN 196-2:2013	-	-	0.32 ± 0.05		
	K <sub>2</sub> O	%	EN 196-2:2013	-	-	0.78 ± 0.05		
	Cl <sup>-</sup>	%	EN 196-2:2013	-	≤ 0.1	0.018 ±		
	Free CaO	%	EN 196-2:1995	-	-	1.15 ± 0.50		
	C <sub>3</sub> S	%		-	-	48.18		
	C <sub>2</sub> S	%		-	-	25.30		
	C <sub>3</sub> A	%		≤ 5.0	-	4.03		
	C <sub>4</sub> AF	%		-	-	13.71		
	CaO/SiO <sub>2</sub>	-		-	-	2.96		
C <sub>3</sub> S+C <sub>2</sub> S	%		-	-	73.47			
Physical Properties	Fineness (Blaine)	Cm <sup>2</sup> /g	EN 196-6:2005	> 2800	-	3375 ± 50		
	Le Chatelier Expansion	mm	EN 196-3:2005	-	-	0.8 ± 0.10		
	Initial Setting Time	min	EN 196-3:2005	> 45	-	110 ±		
	Final Setting Time	min	EN 196-3:2005	< 360	-	240 ±		
	2 days Comp. Strength	Kg/Cm <sup>2</sup>	EN 196-1:2005	-	-	230 ± 20		
		Mpa		-	-	±		
	3 days Comp. Strength	Kg/Cm <sup>2</sup>	EN 196-1:2005	85	-	280 ± 20		
		Mpa		-	-	±		
7 days Comp. St	Kg/Cm <sup>2</sup>	EN 196-1:2005	150	-	395 ± 20			
	Mpa		-	-	±			
28 days Comp. Strength	Kg/Cm <sup>2</sup>	EN 196-1:2005	270	-	550 ± 20			
	Mpa		-	-	±			

ISIRI : Institute of Standards and Industrial Research of Iran Specifications

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LAB MANAGER :

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