

Portland cement product 42.5
with the highest standards
(chemical and physical) according
to Egyptian and European standard
[CEM I 42.5N]



CERTIFICATE

*Chemical Composition and Physical Properties Ordinary Portland cement
[CEM I 42.5N]*

EL-ARISH CEMENT COMPANY



NO	DESCRIPTION (EN 197-1 CEM I 42.5N)	UNIT	VALUE
CHEMICAL COMPOSITION			
1	Silicon Dioxide	SiO ₂	% 19.58
2	Aluminum Oxide	Al ₂ O ₃	% 5.41
3	Ferrie Oxide	Fe ₂ O ₃	% 3.41
4	Calcium Oxide	CaO	% 63.64
5	Magnesium Oxide (Max 5.0)	MgO	% 0.91
6	Sulfur Trioxide (Max 4.0)	SO ₃ <4	% 2.29
7	Chloride < 0.10	Cl ⁻ <0.1	% 0.048
8	Insoluble residue (Max 5.0)	IR< 5	% 0.35
9	Loss On ignition	L.O.I	% 4.65
10	Free-Lime < 2	F-CaO< 2	% 1.1
11	Chromium Hexavalent (Max 2.0)	Cr VI< 2	ppm 1.5
PHYSICS TEST			
1	Fineness (Blaine)		Cm2/g 2984
2	Water consistency		% 27.2
3	Initial setting time	Min 75	Minutes 150
4	Final setting time		Minutes 189
6	2Day (Compressive Strength)		MPa 20.9
8	28Day (Compressive Strength)		MPa 48.3
9	Soundness	Max 10mm	mm 1.5

