MINISTRY OF DEFENSE NATIONAL SERVICE PROJECTS ORGANIZATION



Arish cement Co.

OUR ACHIEVEMENTS BUILD OUR FUTURE



In the heart of Sinai, the land of turquoise, the blessed land that witnessed the transfiguration of God (the Almighty) to Moses, and blessed the passage of the Jesus christ on the Holy Journey. Specifically in North Sinai, about 70 km south of Al-Arish. Al-Arish Cement Factory was established near Jabal Labni.



Al-Arish Cement Company is one of the subsidiaries of the National Service Projects Authority of the Egyptian Ministry of Defense. The company established Al-Arish Cement Factory in North Sinai to contribute to development plans and provide cement with the highest specifications and lowest price for creating balance in market prices and creating job opportunities for the people of the region. It is located in the Heavy Industries area in Jabal Lubna in central Sinai on the Ismailia – Al-Awjah road.

Al-Arish Cement Factory was established in 2011 and the current production capacity is 6.4 million tons annually, it consists of four production lines where it produces clinker and Ordinary Portland cement(OPC) at the rank of 52.5N, 42.5N and 32.5N



Using the finest pure stone ores from the quarries of Jabal Lubna and in a safe way on the surrounding environment, we transfer the stones and the clay stones to our factory by skilled workers with the newest machines and giant cars which preserves them and reduces the wastage. These stones are placed on the belts to transport, break them, and store them in hangers and transport from there to the factory using high efficiency machines to reduce the waste and preserve the environment. Then the iron oxide is added to provide a product that goes along with the Egyptian and European specifications to build durable buildings that lives like our ancestors built their eternal pyramids.



These high-value raw materials are transported to our factory where European machines are, and with Egyptian hands these materials are mixed under a temperature of 1450°C to produce our highquality clinker 52.5. All of this is done according to an ISO-certified manufacture system that also protect the surrounding environment.



The clinker product 52.5 is of the highest standards (chemical and physical) according to Egyptian and European standard

	nemical composition and physic	al properties for (<u>(52.5 N)</u>	Ordinary Portl	and Clinker	
	El-Arish	Cement Con	<u>npany</u>		
A			Ċ)	
0	DESCRIPTION (EN 197-1	CEM 1 52.5 N)	UNIT	VALUE	
CH	EMICAL COMPOSITION				
	Silicon Dioxide	SiO ₂	%	21.02	
	Aluminum Oxide	AL ₂ O ₃	%	6.11	
	Ferric Oxide	Fe ₂ O ₃	%	3.89	
	Calcium Oxide	CaO	%	65.78	
	Magnesium Oxide	MgO	%	0.99	
	Sulfur Trioxide	SO 3	%	0.80	
	Chloride	Cl ⁻ < 0.1	%	0.048	
	Loss On ignition	L.O.I	%	0.28	
	Insoluble residue	I.R	%	0.3	
)	Free-Lime	F-CaO < 2	%	1.2	
1	Chromium Hexavalent	$Cr VI \le 2$	ppm	1.0	
10	DULES				
_	Lime Saturation Factor	LSF	1	94.15	
	Silica Modulus	SM		2.1	
	Alumina Modulus	AM		1.57	
H/	ASE COMPOSITION				
	Tri Calcium Silicate	C ₃ S > 52	%	54.19	
				10.14	
	Di Calcium Silicate	CS	9/0	19.41	
1 2 3	Di Calcium Silicate	C ₂ S C3A	%	19.41 9.62	



DS

The high-quality clinker is grinded to produce various cement types:

- 1- Portland Cement 52.5N [CEM I 52.5N]
- 2 Portland Cement 42.5N [CEM I 42.5N]
- 3- Limestone Cement 32.5N [CEM II/B-L 32.5 N] It is also possible to produce special types upon request.



Portland cement product 52.5 with the highest standards (chemical and physical) according to Egyptian and European standard [CEM I 52.5N]



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

	ERTIFICAT	E	
Chemical Composition an	d Physical Prop [CEM I 42.		ry Portland cement
EL-ARISH	CEMENT O	COMPANY	
ACCREDITED" Mission Mi	ICE		
O DESCRIPTION (EN 197-1	CEM I 42.5N)	UNIT	VALUE
CHEMICAL COMPOSITION			
Silicon Dioxide	SiO ₂	%	19.58
Aluminum Oxide	AL ₂ O ₃	%	5.41
Ferric Oxide	Fe ₂ O ₃	%	3.41
Calcium Oxide	CaO	%	63.64
Magnesium Oxide (Max 5.0)	MgO	%	0.91
Sulfur Trioxide (Max 4.0)	SO3<4	%	2.29
Chloride < 0.10	Cl_<0.1	%	0.048
Insoluble residue (Max 5.0)	I.R< 5	%	0.35
Loss On ignition	L.O.I	%	4.65
Free-Lime < 2	F-CaO< 2	%	1.1
1 Chromium Hexavalent (Max 2.0)	Cr VI<2	ppm	1.5
HYSICS TEST			T
Fineness (Blaine)		Cm2/g	2984
Water consistency		%	27.2
Initial setting time	Min 75	Minutes	150
Final setting time	19110 75	Minutes	189
2Day (Compressive Strength)		MPa	20.9
		MPa	48.3
28Day (Compressive Strength)) Soundness	Max 10mm	mm	1.5
Soundness			













Limestone cement product 32.5 with the highest standards (chemical and physical) according to Egyptian and European standard [CEM II/B-L 32.5 N]

CERTIFICATE Chemical Composition and Physical Properties of Limestone cement [CEM II/B-L 32.5 N] EL-ARISH CEMENT COMPANY G-CERI SYSTEM SERVICE 150 9001 2015 Certi No: GIEG-0057-QC MSCB-113 UNIT VALUE NO DESCRIPTION (EN 197-1 CEM II/B-L 32.5N) **CHEMICAL COMPOSITION** Silicon Dioxide SiO₂ % 15.45 Aluminum Oxide AL203 % 4.72 Ferric Oxide Fe₂O₃ % 3.06 Calcium Oxide CaO % 67.76 4 % Magnesium Oxide (Max 5.0) MgO 0.17 SO3<4 % 2.71 Sulfur Trioxide (Max 4.0) Chloride < 0.10 Cl⁻<0.1 % 0.02 Insoluble residue (Max 5.0) I.R< 5 % 0.45 Loss On ignition L.0.I % 13.22 Free-Lime < 2 F-CaO<2 % 1.2 10 11 Chromium Hexavalent (Max 2.0) 1.3 Cr VI<2 ppm PHYSICS TEST Fineness (Blaine) Cm2/g 4875 1 % 27 Water consistency Initial setting time Minutes 117 Min 75 Final setting time Minutes 177 4 7Day Flexural MPa 6.1 7Day (Compressive Strength) Min 16 MPa 32.1 7.7 28 Day Flexural MPa 28 Day(Compressive Strength) Min 32.5 - Max52.5 MPa 43

Soundness

Max 10mm

1.5

mm













We offer Arish Portland cement to you bulk or packed in bags made in our factory using the best craft paper that reduce waste of cement and maintain it from external factors so that we keep our environment clean and it reaches to customer in full quality.



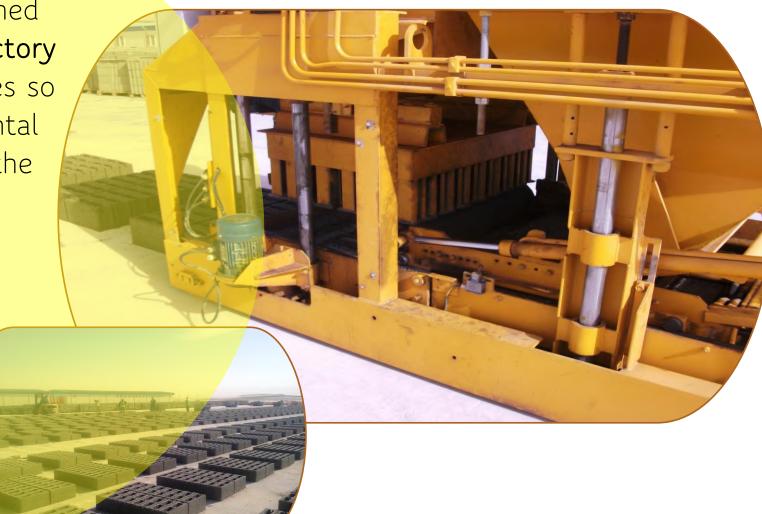


And because We are making better use of our resources and keeping the environment clean we have established **Al-Arish brick and cement block factory** etsaw eht tiolpxe ots of our factories so that they do not lead to environmental pollution and are directed to serve the reconstruction and construction of Egypt.

Al-Arish Brick Factory is producing: -Interlock tiles

- Solid concrete bricks
- Hollow concrete bricks

According to the specifications of the Housing and Building Research Center



For all of this, these were chosen on the Arish Portland cement



Arish Portland cement was adopted as the best local type used to build bridges

Rod El-Farag Axis "Tahya Masr Bridge"

The axis includes 6 outlets and outlets in El Mazalat; and 8 inlets and outlets to connect with the Ring Road and a bridge on the West of the Nile, 400m length, 50m width and 14m height from the surface of the water and the width of the opening of the navigation of 120m, allowing the passage of floating hotels and was established by the system of moving vehicles.

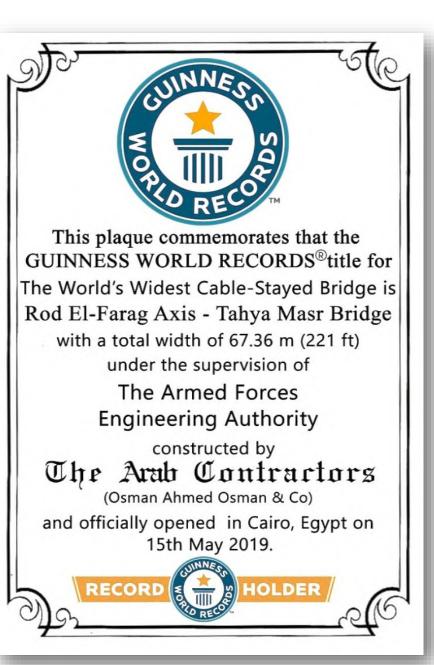




And Rod El-Farag Axis "Tahya Masr Bridge"

It is recorded in **Guinness** World Record as the World Widest Cable Stayed Bridge; in terms of width 67.3m in the middle and the largest navigational slot across the Nile, where the width of the opening of the navigation is up to 300m, its pillars reached 100m and load capacity 120 tons.





Sandob bridge

Located at the entrance of Mansoura City, it consists of 3 levels and helped in solving traffic jams on the highways linking Mansoura with the governorates of Cairo, Damietta, Sharkia, the cities of Sinbillawain, Dikirnis, and Manzalah in Dakahlia. <u>The length of the bridge is 2540 meters in various directions</u>.

In addition to more than 600 bridge in all Egypt



<u>Tunnels</u>:

considering its great importance in linking east to west these transport links will reduce travel time from several hours to four minutes

Four new tunnels, two from Ismailia and two from Port Said will connect mainland Egypt with Sinai Peninsula The tunnels will reduce the time it takes to cross the Suez Canal from hours or even days to a few minutes The 2.37mile long road tunnels and 3.48miles rail tunnel under the canal.

Arish cement is playing a major part in construction of these tunnels.





Arish Portland cement was adopted as the best local type used in grounds of new capital project

New Cairo capital city is located 35 KM east of Cairo of a total area of 170,000 feddan. The new capital city lies between the regional ring road, the Cairo-Suez road and Cairo-El Ain El Sokhna road.

The new capital city will help to strengthen and diversify the country's economic potential by creating new places to live, work and visit. In order to draw people to this new capital city, a series of key catalyst developments will be established at its core. This will include a new government administrative district, a cultural district and a wide variety of urban neighborhoods.



New cities:

Also the portland arish cement is considered a major contributor to the construction of many new cities as

new cairo, new ismailia ,The Alamein City ,El Galala Plateau,New Mansoura City The limestone Arish cement used in interior finishes and architectural facades.





<u>Airports :</u>

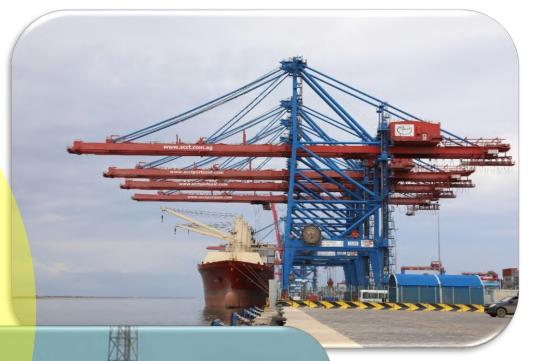
Our cement is used in developing and constructing several airports as -New capital international airport -Berenice international airport -Arish international airport -Sphinx international airport -Bardawil international airport



Sphinx international airport

Seaports:

Egypt's geographic location adds an important aspect to the maritime transport sector. Overlooking at both the Mediterranean and Red sea and having the Suez canal linking them, Egypt realized that it can play an important role at the international level and have accordingly overplayed the infra structure of a great maritime industry by building ports and supplying them with high tech equipment to handle cargoes and passengers The Arish cement was a major contributor to development and expansion among these seaports





Arish cement company made another successful projects

El-Arish for marble and granite is one of the leading Egyptian companies in manufacturing of marble, limestone and granite.

Our company was established in 2015 and has different quarries producing 20.000 m3 / month of different materials like GALALA and Golden Honey. Our factories is located in Badr City and Bani Swif City -Industrial Zone, and we have 600 employees in various

departments.

We provide Egyptian marble, limestone, and granite in blocks, slabs, tiles and cut- to-size with all thicknesses and different surface finishes.

To guarantee our customers' satisfaction we put our greatest efforts into quality control and selection at each stage from the quarrying process through the final delivery and finished products.



Our Factories Labor Force:

- 114 Permanent Employees
- 600 Daily workers
- Current Operating machinery and production lines in Our Factories (All Italian)
- Our Factories has reached a production capacity of 300,000 m²/month, on a two shift basis 1 shift = 12 hour; this is supported by:
- 21 Gang Saws
- 4 Block Cutters
- 5 Bridge Cutters
- Stripping and Polishing Lines with Polyester and Epoxy Treatment
- Brushing lines
- 2 Splitting Lines
- Calibrated Tiles Line
- Tumbling machine

The epoxy line is the company's main market differentiator, with a production capacity of 30,000m2/month. The epoxy finish is the highest quality stone treatment that can utilize low quality blocks to produce high quality, value added products

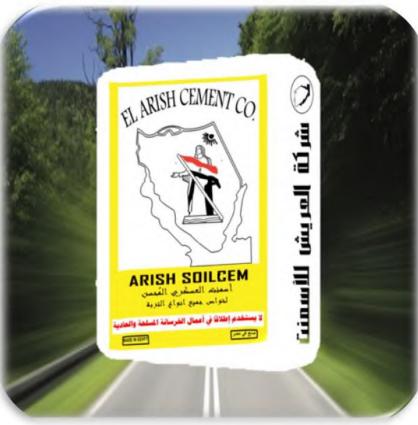




Unique project powered by Arish cement Co.

Arish SoilCem is a blend of Arich Cement and a cement additive with unique properties made of synthetic zeolites, alkaline materials, and chemical activators.

Arish SoilCem enables the binding of cement and soil as a result of unique chemical dynamics that allows the growth of calcium silicate crystals that are formed into a super-flexible needle structure forming a long mesh fabric that makes it possible to treat and stabilize most types of soil (Including soft clays). Arich SoilCem is applied according to standard and norms. By mixing Arich SoilCem with the soil, a high-performance stabilized soil is formed. Arich SoilCem can also be used in making High-performance Zeolite concrete that has a very high elastic modulus and tensile strength that can endure high loads and stresses without the need to use any sub-layers or soil replacement under the Arich SoilCem layer.



Unique benefits of Arich SoilCem

- The ability to use and stabilize any natural soil available on site.
- Eliminating the need of soil replacement.
- Decreasing the initial construction cost by 15 to 30%
- Decreasing the construction time by 50 to 70%
- Decreasing the maintenance cost by 50%
- Decreasing the water permeability to a very low percentage
- Increasing the Modulus of Resilience
- Increasing the Modulus of Elasticity
- Increasing the Flexural Strength
- Increasing the compressive strength



Arich SoilCem can be used in the following applications

- Road Construction (Highways and Secondary roads)
 Walkways
- Treatment and stabilization of weak soil below buildings
- Ports, airports, factories 'and platforms' floors as an alternative for Steel reinforced without the need to use reinforced steel or joints.
- Linings and stabilization for slopes and canals with impermeable solutions.
- The creation of bricks and cement-based products using any type of soil available on site.





Get in touch with us!



Tel:+20222605255-+20222605299 Fax: +20222605188 Info@elarishcement.com h.sabry@elarishcement.com m.yahya@elarishcement.com

+201270474447