

A photograph of three large, cylindrical concrete silos or storage tanks. The silos are light gray with horizontal bands. They have metal walkways and railings at the top. The background is a clear sky. The image is partially covered by a large blue graphic element that contains the text "Company Profile".

# Company Profile

[www.telalmix.com](http://www.telalmix.com)





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## 1. The Company

**TELAL** was established in the year 2020 by a group of high profile investors who wanted to venture into the fast growing Egyptian Construction Industry.

The Company's focus being the high end market, investment was made into the most modern, state of the art and technologically advanced Plants, Equipment and Machinery. The Company has the capacity to supply up to 5,000 m3 of high Performance concrete per day.

These were the key considerations of the present shareholders while deciding on acquiring **TELAL**.

Coming from the solid background of unparalleled experience of over 30 years in the Ready-mix Concrete Industry in Egypt and the Middle East and with the most prestigious and land mark Projects to our credit, **TELAL** provides the right vehicle to perform to the challenging standards of our discerning clients.

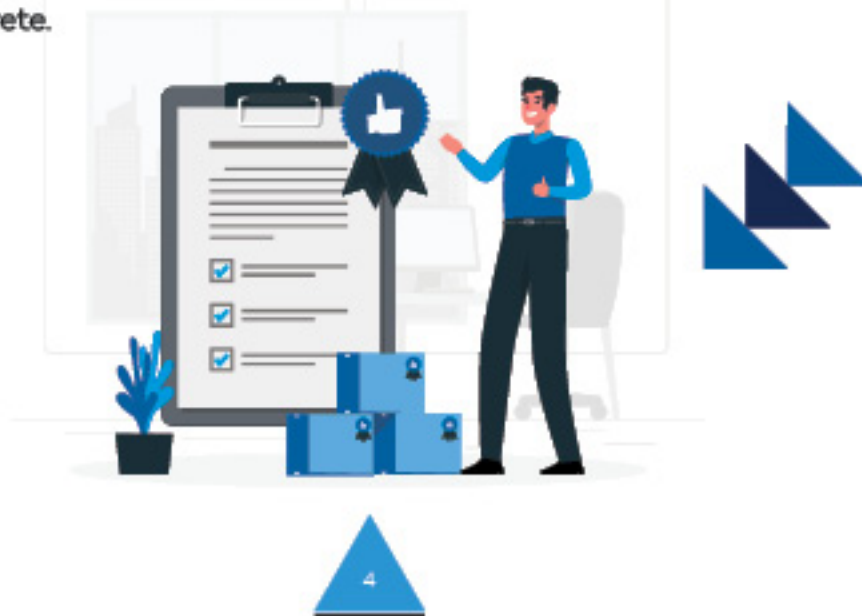
Our target is to perform in the niche High Performance Concrete market and to establish our presence in the high profile Projects Sector as the Number One Supplier and Service Provider.

With this view, we have after acquisition added a 47 meter Boom Mobile Pump and 56 meter Boom Mobile Pump to our fleet.

We have the best and most experienced team of Engineers and Technicians in the Egypt and some of them have carried out the Pumping and Climbing Operations in landmark Projects.

Ultimate Customer Satisfaction is our goal and we will strive to the best of our ability to ensure the same is achieved **TELAL** believes in establishing long term strategic relationships with customers to ensure that their latent and expected needs are well met.

**TELAL** under New Management Team is rightfully targeting to be the "one-stop destination" for all the most challenging specifications and performance requirements in Ready-mix Concrete.







## 2. Quality Policy Statement

**TELAL** has defined and documented the following commitment with respect to quality. Every staff member has the responsibility to ensure that the intentions of this policy statement are understood, applied and maintained within their own activity area.

**TELAL** is committed by providing innovative high quality products, services and on time delivery to all its customers.

**TELAL** is also committed to focus on its activities towards exceeding customer's ever changing needs and expectations, as well as meeting applicable regulatory requirements. All organizational units are enjoined to continually improve business processes with the aid of an Integrated Management System to achieve pioneering leadership and enhance customer satisfaction.

To implement and maintain this policy our commitment, **TELAL** will:

- » Comply with all applicable statutory laws and regulations.
- » Follow a concept of continuously improving the effectiveness of this quality management system and make best use of our management resources in all Quality matters.
- » Communicate our Quality objectives and our performance against these objectives throughout the company and to the interested parties.
- » Take due care to ensure that activities are quite safe for employees, associates subcontractors and others who come into contact with our work.
- » Work closely with our customers and suppliers to establish the highest Quality standards.
- » Adopt a forward-looking view on future business decisions, which may have Quality impacts.
- » Train our staff in the needs and responsibilities of Quality Management System.
- » Provide required resources to our personnel to ensure that the importance of meeting and exceeding customer requirements is communicated and understood throughout our Organization.
- » Conduct all work to a high professional standard with Technical and Commercial integrity.
- » **TELAL** Implements and promote a Quality Management System that satisfies the requirements of ISO 9001:2008. This policy will be reviewed for continuing suitability and effectiveness at Management Reviews and as required and appropriate. Please also be aware that Quality Management forms part of our Integrated Management System which also conforms to ISO 14001 (Environmental Management), OHSAS 18001. (Health & Safety), and ISO 9001:2008 Quality Management System.





### 3. Health & Safety Policy Statement

TELAL Policy to do all that is reasonably practical to safeguard the health and safety of its employees and others that may be affected by its acts or omissions, to prevent accidents and ill health at work arising from work activities, and to prevent damage to Company property. The Company as a minimum will comply with all health and Safety legislation applicable to Egyptian business, and aim for continual improvement of its health and safety management system.

#### ►► Objectives :

- ✧ To provide a safe and healthy working environment and to prevent accidents and cases of work-related ill health.
- ✧ To contribute to the safe and efficient operation of Company activities by maintaining safe premises, plant and work equipment, and by the prevention of accidents and damage to property.
- ✧ To ensure as far as it is reasonably practical that the design, manufacture and instruction to users of Company equipment and products results in safe operations and handling.
- ✧ To provide managers and employees with sufficient supervision, information, instruction and training to ensure they are competent to undertake their work activities, including their general and specific responsibilities under our health & safety management system.
- ✧ To provide adequate control of the health and safety risks arising from our work activities.
- ✧ To ensure safe handling, storage, transportation, use and disposal of hazardous substances and hazardous waste.
- ✧ To minimize the impact to the environment from Company operations.
- ✧ To consult with our employees on matters affecting their health and safety.
- ✧ To review and revise this policy as necessary at regular intervals.

#### ►► Responsibilities:

Our health and safety management system arrangements allocate general and specific responsibilities to managers, employees and supporting activities.

The Designated Person, who has overall responsibility for the management of health and safety within Egypt, will sign this Statement of Intent and in particular will ensure that health and safety management is integrated into the main management structure and normal business processes, and that there is adequate organizational structure for health and safety, and adequate resources. The Company Health & Safety Manager will





monitor the health and safety management system; Advise management and employees on safe systems of work, company procedures and policies, and on current and pending Egyptian health and safety legislation and requirements under that legislation.

All employees have a legal responsibility to cooperate with the Company for it to meet its obligations under health and safety legislation.

#### ►► Organization & Procedures:

The detailed organizational arrangements for carrying out this policy are contained in Company policies and procedures grouped in documents with a HS reference. This policy reaffirms the Company's resolve to ensure that the health and safety of employees will be a key objective of the Company and subject to ongoing review.

## 4. Environmental Policy Statement

TELAL has defined and documented the following commitment with respect to reducing its impact on the environment.

We will strive to improve our Environmental performance over time and to initiate additional projects and activities that will further reduce our impacts on the environment. Our commitment to the environment extends to our customers, our staff, and the community in which we operate.

#### ►► We are committed to:

- ✧ Comply with all applicable environmental regulations.
- ✧ Prevent pollution whenever possible.
- ✧ Train all of our staff on our environmental program and empower them to contribute and participate.
- ✧ Communicate our environmental commitment and efforts to our customers, staff, and our community, and continually improve over time by striving to measure our environmental impacts and by setting goals to reduce these impacts each year.





## 5. Chairman of the board

**TELAL** board of directors is headed by DR/ ISMAIL EL ANSARY & ENG/ MILOUD SABER whom his family has been investing in Egypt for 30 years and who is a Pioneer in management.

He is well known in the Industry for his contribution in terms of several mega projects in whole Egypt.

**We are committed to :**

### 1. Pump Operators & Technicians/Supervisors for Hydraulic Climbing Operations

- » Ramadan mohamed – mobile pump Technician.
- » Khaled Mohamed– mobile pump Technician.
- » Ahmed Doma– mobile pump Technician.
- » Hosam Gamal – Hydraulic Mechanic.
- » Mohamed Saeed – Auto Electrician.



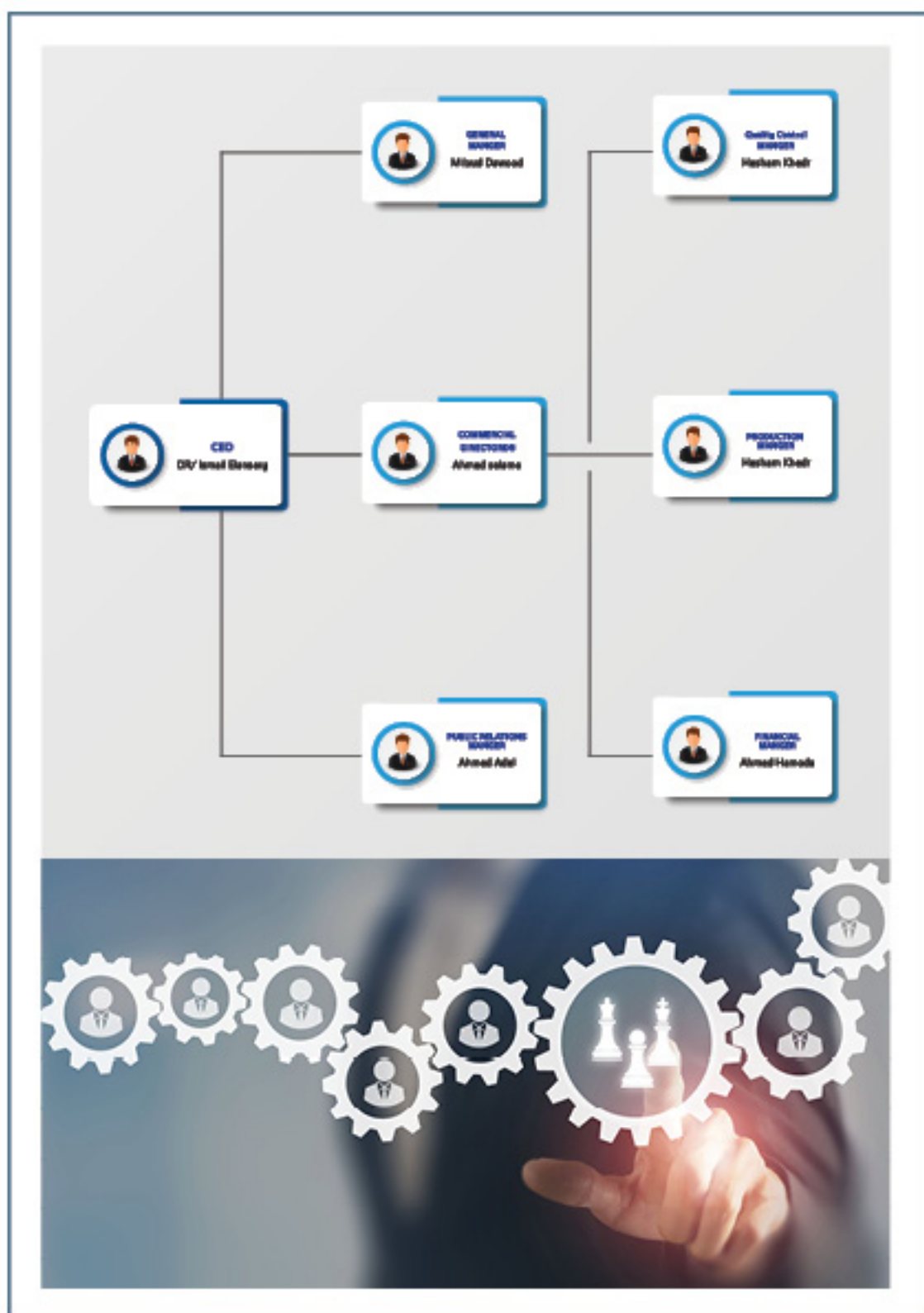
### 2. Technical Department

- » Mohamed Basuony– Technical –in-charge -He has more than 14 years' experience in the Ready-mix Concrete and Material Testing fields. He worked in several reputed Ready-mix Companies in Egypt. At Family-mix, He is responsible for all coordination of Technical and Quality aspects for concrete production.
- » Ahmed Adel – QA/QC Engineer - He has 6 years of total experience. She worked as a QA/QC Engineer. He is M. Sc. in Industrial Chemistry and is responsible for all QA/QC activities, document control, monitoring and Technical documentations at TELAL.
- » Mohamed Saber – Technical Supervisor - has overall more than 10 years of experience in ready-mix and Material Testing field. He was a member of the Technical team during the construction of all iconic land marks in Egyptian Projects. He is responsible for supervising all Technical and Quality aspects of Concrete production at family.
- » Mohammed khaled – QC Inspector -Mohammed has 6 years total experience in Construction Industry, 3. years in Contracting and 3 years in Ready-mix Concrete Industry in Egypt.He is a qualified and active affiliated member of Society of Engineers Egypt and also an approved Laboratory Engineer by Egyptian Building Department since 2014.He is overall responsible for inspecting the compliance of all concrete raw materials and finished products for Family mix.





## 6. TELAL READY MIX ORGANIZATIONAL CHART





## 7. Plant & Machinery

**TELAL operates the following Concrete Batching Plants:**

### 1. COGGIE CC3000D - ITALY

Capacity - 120m<sup>3</sup>/hr, Twin Batching Plant

Fully containerized,

### 2. SECOMA CC 3000B - ITALY

Capacity - 120m<sup>3</sup>/hr

Fully containerized,

### 3. ELBA Super Mobile Plant - GERMANY

Capacity - 130 m<sup>3</sup>/hr

Fully Mobile

### 4. Chillers - KTI Germany

3 units, Capacity - 15m<sup>3</sup>/day



**TELAL has a contemporary fleet consisting of:**

### S.N. Item / Name Description

- 1- Transit Mixer : 28 units.
- 2- Concrete : (1 units 52 meters), (1 units 47 meters), (2 units 42 meters).
- 3- Pump (1 units 39 meters), (2 units 36 meters).
- 4- Placing boom : 6 units (32 meters boom length).
- 5- Wheel Loader : 2 unit.
- 6- Trailers & : 14 units (For Aggregates, Cement and Water Tankers Transportation).



## 8. TELAL QUALITY CONTROL PROGRAM

Established, implemented and aligned with the requirements of Municipality Factory Production Control - RD-DP21-2186 (IC) Copy of SM Quality Control Plan, may obtain from Technical Department upon request.







## 9. TELAL METHOD STATEMENT

### 9.1 Quality Control and Concrete Production

Quality Control is a paramount concern in our Ready-mix Business and our technical team is organized to produce concrete with the best quality of materials (**Aggregates, Cement and Admixtures**) are available in the United Arab Emirates.

We as a commercial supplier remain always committed to maintaining and improving the quality of our product using best quality materials available locally.

All materials used in the manufacturing of ready mix concrete are subjected to our rigid pre-testing regime to confirm compliance to the relevant National and International standards Like ACI, BS and ASTM. All constituent of aterials are inspected, tested and stored systematically and the supply of concrete is constantly monitored to ensure quality consistency.

### 9.2 Quality Control and Testing Schedule

Testing of all Concrete Materials prior to its Use in Concrete is carried out as per our "QUALITY CONTROL PLAN".

Additionally all Incoming Material is carefully Stockpiled and Constantly Monitored.

### 9.3 Concreting in hot weather

Flaked ice plants with sufficient ice storage capacity and chilled water stored in insulated tanks, shading of aggregate bays are absolutely supportive for concreting in hot weather. Aggregate bins are shaded.

Transit mixer drums are painted with heat reflecting paint. New generation.

### 9.4 Other Technical Details

TELAL operates well equipped testing laboratories at its manufacturing unit, and is managed by well qualified and experienced Engineers and Technicians.





## 9.5 Material Receipt and Storage

### 9.5.1 Aggregate Receipt

Incoming loads of aggregates are visually inspected for type, quality and contamination prior to unloading. Satisfactory loads are unloaded into designated areas and the delivery documents are signed by the SM QC Representative and passed on to the Technical In-charge for submission to the QA & Technical Manager. Non-acceptable loads are returned with a note indicating the reason for non-acceptance and a copy of the note is retained in the suppliers file for reference.

### 9.5.2 Cement Receipt

The QC Inspector / Technical Supervisor in connection with plant operator to verify the cement delivery note for the type of cement and indicates the silo to which the cement has to be discharged. The Plant Operator signs off the delivery note when the discharge is completed and verified by Technical Supervisor and passes the delivery ticket and the mill certificate to the QC Inspector for submission to the QA/QC Manager or QA & Technical Manager.

### 9.5.3 Diesel Fuel Receipt

The diesel tank gauge reading is taken before and after delivery to verify that the required volume of fuel is received and matches the volume on the delivery ticket. The delivery ticket is signed by the diesel feeding operator and passed on to the Workshop in charge.

### 9.5.4 Admixture Receipt

Admixtures are delivered in bulk tankers (liquid) and in jumbo bags (micro silica) Bulk liquid admixture deliveries are discharged to the appropriate tanks under the supervision of the QC Inspector after the verification. The delivery ticket is signed by the QC Inspector and passed on to the Technical Supervisor for submission to the QA & Technical Manager. All Receipts of Materials are recorded in the material receiving register in ERP for Account Reference.

## 9.6 Production and Delivery Planning

### 9.6.1 Order Confirmation and Planning

Delivery orders, either verbal or fax or Email, are placed at least 24 hours in advance of delivery and confirmation, either verbal or by fax or Email at least 24 hours before delivery. Orders and confirmation are recorded in the order register book. Any changes to the production program resulting due to site conditions are also considered. The Shipper/ Production Supervisor passes on the daily program to the Plant operator.

### 9.6.2 Production and Delivery

The Production Manager modifies the daily production plan based on the site conditions and changes requested by the customers and accommodate the new emergency

orders that come in. The Shipper /Production Supervisor prepare a summary at the end of each day production. The summary is submitted to the Commercial & Operation Manager, QA & Technical Manager, and QA/QC Manager and to the accounts department.

#### 9.6.3 Supervision on Site

Before the delivery commences the Site Foreman if necessary visits the sites to inspect the accessibility to pumps and truck mixers prior to delivery. When the site access condition is unsatisfactory or when the site is not ready to receive concrete, the site foremen informs the Shipping/Production Supervisor to hold the concrete until the conditions are satisfactory to receive concrete. The Production supervisor/site foreman/ Workshop foreman coordinate with the site personnel and allocate the necessary plant and adjust the concrete supply frequency such that the customer receives an uninterrupted supply of concrete. When the utilization of concrete pump is completed on one site the production supervisor/site foreman re-allocate the pump after consulting with the Production Manager.

#### 9.5.4 Admixture Receipt.

### 9.7 BATCHING:

The Laboratory Technician determines the moisture content of the aggregates and passes it to the Plant Operator. Batch weights of mix design are readjusted automatically by plant computer according to verified moisture content given by the Laboratory Technician. The Plant operator assistant positions the empty truck mixers as per the instructions obtained from the Plant Operator. The Plant Operator initiates the batching sequence and monitors the process on the computer screen. Aggregate, Cement, Water and admixtures are automatically discharged into the plant mixer (wet mix plant) where it is mixed to required consistency.

#### 9.7.1 Ice Control (if Required)

Flaked ice produced from KTI Ice plant will be batched automatically in plant mixer based on the percentage of ice to be used selected in plant computer. Note: Flakes Ice is added in concrete mix according to the client requirement to control the temperature less than project specification requirements.

#### 9.7.2 Delivery Documentation

When the truck mixer is filled with the required volume of concrete, a computerized batch printout is generated by plant computer printer which is given to the client (if required) along with the delivery note prepared by Shipping Department and pass on it to the transit mixer Driver / Site Technician to submit to the required site location / Client representative for acceptance of delivery.



### 9.7.3 Inspection and Testing

When require quantity of concrete is batched for a project, the Shipper/ Plant operator informs the Technical In- charge for sampling and testing as per the Stone mix quality control program. The Laboratory Technician takes the samples from the batch load for Quality Control Checks. Each load that leaves the plant is measured for slump and temperature and other Quality Checks as required. The Plant Technician informs to Technical In-charge of the results. The Technical In-charge decides whether any additional working is required to maintain the desire quality requirement of the product at site.

### 9.7.4 Delivery

All Vehicles Drivers to carry routine checks and inform the Workshop Supervisor of any problem, that they consider need to be checked. Transit Mixers The Transit Mixer Operator makes sure that he collects the delivery tickets and goes by the shortest route to his destination. The Transit Mixer Operator informs the customer representative when the load had arrived in site and awaits his direction for offloading. When the process of offloading is completed, the Transit Mixer Operator makes sure that the customer representative signs the delivery note and he is given the designated copy of the delivery ticket. The driver cleans the truck mixer at a designated area, returns to the batch plant, and hands over the copy of the delivery ticket to the Shipping Department. Concrete Pumps: The Pump Operator positions the pump in a place from where the delivery site can be reached by the boom easily by keeping all the safety factors in consideration. At the completion of the pumping operation the pump sheet is filled up and given to the customer for signature. The Pump Operator then proceeds to the next location as directed by the Shipper /Production Supervisor.

### 9.8 Concrete & Aggregates Testing:

Concrete A sample of fresh concrete is drawn from the truck mixer as per Quality Control Plan frequency or part thereof (as instructed by the Technical In charge/ Supervisor) from the truck mixer supplied to a customer each day. The details of the sampling are entered into the concrete sampling report. The procedure as detailed in BS 1881 Part 101: is followed for test on the cube report. Cube testing for strength is carried out in accordance with BS.

1881. : Part 116. The cube test results are recorded in the cube test register and the cube report is signed by the Technical Supervisor. Aggregates New deliveries of aggregates are sampled prior to using in production by TELAL Quality control Laboratory. Tests are carried out in the site laboratory accordance with methods and procedures of the relevant BS, ASTM and ACI standards as applicable.



. Results are recorded on the relevant test worksheets, and the computerized report is generated by Laboratory Technician and submitted to the Technical Department for checking and advice. Independent testing is carried out in an authorized laboratory periodically. Representative samples of aggregates are taken from the plant stockpiles by the Laboratory Technician in the presence of the QC Inspector and submitted to the laboratory for testing, accompanied by a test request details. A copy of the test certificate is filed in the laboratory file.

#### **9.9 Equipment and Calibration**

Laboratory equipment is calibrated in-house, and by using the services of an independent calibration Service Providers. Laboratory electronic and mechanical equipment's are calibrated using the services of an Independent Calibration Authority. Batching plant weighing scales for aggregate, water, cement and admixture discharge are calibrated using the services of an Independent calibration authority. Other laboratory items, such as molds etc. are calibrated in-house.

#### **9.10 Calibration Records**

Original records are maintained by the QA/QC Department and copy by the Technical In charge. The calibration status of equipment's is indicated on the equipment by a calibration label. Items that do not bear a calibration label, indicating that the equipment is within calibration, are removed from use until the calibration status is confirmed.

#### **9.11 Purchase Control**

Purchase of aggregates, cement, admixtures and related materials are covered by a contract agreement / LPO – open or bound. Day to day requirements of aggregates, cement, admixtures and related materials are placed verbally to approve suppliers by the Quality/Technical Department. Purchases of other supplies require an LPO to be raised and are submitted to the Cost Control Manager for approval and procurement of services such as calibration.

#### **9.12 Supplier Approval**

All suppliers are assessed for quality and compliance of product prior to orders being placed and a record of their status are made on the Approved supplier list.

#### **9.13 Stores and Purchases**

##### **9.13.1 Ordering**

The Store In-Charge informs either verbally / Written the purchaser when spares/ consumables are not available from stock. The purchaser writes down the items specification on the quotation requisition and invites quotations from minimum two potential suppliers, for price and delivery data. The Purchaser raises a material requisition containing all the relevant purchase data based on the best deal. The supervisor requesting the purchase, signs the material requisition recommending the purchase.

Requisitions are then passed on to the Cost Control Manager through Head of the Department for approval. LPO is then prepared for the purchase of the item.

#### ►► 9.13.2 Monthly Report

A monthly report of all purchases and consumption is produced by the purchaser and submitted to the Cost Control Manager.

#### ►► 9.13.3 New Suppliers

The potentiality of a new supplier is assessed by the following Considerations:

- » Range of supplies.
- » Product quality.
- » Quality control and assurance system.
- » Specified by customer order.
- » Sample for laboratory evaluation.
- » Responses to the evaluation questionnaire.
- » Suppliers who demonstrate compliance to CONCRETO standards will be recommended by the department manager and authorized by Cost Control Manager for the inclusion on the approved supplier list.

#### 9.14 Removal from Approved Supplier's List

When a supplier fails to supply materials or services as per TELAL standards, the concerning Head of the Department and Purchaser will communicate with the supplier and indicate to them for corrective action required. When a supplier subsequently fails to meet the TELAL requirement the QA/Technical Manager and QA/QC HSE Manager will ensure that the supplier will be removed from the approved list.



## 10. Our Solutions

- » Early Strength Concrete .
- » Polypropylene Fiber Concrete.
- » Lightweight Concrete.
- » Self Compacting Concrete .
- » Coloured Concrete .
- » Structural Fiber Concrete.
- » High Strength Concrete .
- » Low Heat Concrete .





## 11. Our Strategic Partners



## 12. Plant & Office Location

### • \*First patch plant

Borg Elarab - Alexandria.

# 120 m3/h coggie Italy

( Patch plant qualification)

- associated with 10 trans. Mixer trucks  
10 m3 mounted on man truck
- 3 concrete pumbs ( mobile)
- full lab

### • Second patch plant

Elalamien – North Coast

# 130 m3/h #ELBA germany

( Patch plant qualification)

- associated with 10 trans. Mixer trucks  
10 m3 mounted on man truck
- 2 concrete pumbs ( mobile)

### • Third patch plant

ELDabba - Alex-Matrouh road - North coast

( Patch plant qualification)

- associated with 8 trans. Mixer trucks  
10 m3 mounted on man truck
- 2 concrete pumbs ( mobile)
- full lab





**BMJ**  
مركز بحوث مواد البناء والجودة

**HBRC**  
المركز الوطني للجودة

**شهادة**  
بشهادة  
المركز القومي لبحوث الإسكان والبناء  
معهد بحوث مواد البناء وضبط الجودة  
بأن محطة خلط الخرسانة الخاصة بـ  
شركة نلال للخرسانة الجاهزة  
الساحل الشمالي - العلمين  
قد حققت اشتراطات المواصفة الفنية للخرسانة الجاهزة  
**Class A (89%)**  
والمحطة موزعة لإنتاج خرسانة ذات مقاومة ضغط حتى ٥٠٠ كجم/سم<sup>٢</sup> بمحتوي اسمنت ٥٠٠ كجم/م<sup>٣</sup>  
بشرط الالتزام الكامل بنسب مكونات الخلطة الواردة بالتقرير الفني المرفق

على أن تتلزم المحطة باشتراطات الكود المصري لتصميم وتنفيذ المنشآت الخرسانية رقم ٢٠٣ لسنة ٢٠٢٠ من حيث جودة المواد واعتماد مصادرها ودورية الاختبارات وتوفير متطلبات ضبط الجودة الداخلية والخارجية وكذلك اشتراطات المواصفة الفنية للخرسانة الجاهزة لسنة ٢٠٠٧ مع مراعاة الملاحظات الموضحة بهذه الشهادة

٥ سبتمبر ٢٠٢٤ تاريخ إصدار الشهادة

٤ سبتمبر ٢٠٢٥ تاريخ انتهاء الشهادة

**ملاحظات**  
\* يجب التحقق من مدى النشاط القوي لتركيب من خلال إجراء التحليل البتروجرافي وتحليل الأشعة السينية المتفرقة. ويجب أن يشمل تقرير الاختبار نسب المركبات والأكاسيد المختلفة. ويتم الرجوع للاستشاري لتقييم هذه النتائج لتحديد ما إذا كانت هناك ضرورة لإجراء الاختبارات الواردة بجدول (١٤-٢) لحالات التفاعل القوي السيليسي وبتنول (١٤-٢) لحالات التفاعل القوي الكربوناتي بالكلود المصري لتصميم وتنفيذ المنشآت الخرسانية رقم ٢٠٣ لسنة ٢٠٢٠. التقرير الفني جزء لا يتجزأ من الشهادة.  
\* تسري هذه الشهادة فقط عند استخدام أسمنت مطابق لمواصفات الكود المصري رقم ٢٠٣ لسنة ٢٠٢٠ من حيث النوع والرتبة.  
\* يراعى توفير ميزات ميكانيكية لتركيبات الكبير والصغير بالمحطة.  
\* يراعى تطبيق احتياطات الكود نظراً لزيادة محتوى الأسمنت عن الحد الأقصى المسموح به بالكلود المصري لتصميم وتنفيذ المنشآت الخرسانية رقم ٢٠٣ لسنة ٢٠٢٠.  
\* تسري هذه الشهادة فقط في حالة إجراء الاختبارات الدورية على المواد المستخدمة والخرسانة المنتجة طبقاً لجدول (٢-٨) بالكلود المصري رقم ٢٠٣ لسنة ٢٠٢٠. وكذلك تقديم التقارير المعدة بمعرفه المركز القومي لبحوث الإسكان والبناء - معهد بحوث مواد البناء وضبط الجودة.

رئيس مجلس الإدارة  
**أ.د. محمد مسعود السعداوي**  
أ.د. محمد مسعود السعداوي

مدير المعهد  
**أ.د. أحمد عبد الحليم الجباري**  
أ.د. أحمد عبد الحليم الجباري

٢٠٢٤/٢٠٤ رقم: ٢٠٢٤/٢٠٤

## Certificates and accreditations

**Prof. Dr. Shafik S. Khoury**  
Structural Engineering Department,  
Faculty of Engineering, Alexandria University.

**ACI Member**

Ph. D. in Reinforced Concrete & Properties of Materials  
University of Houston - USA.



**أ. د. شفيق شوقي خوري**  
أستاذ بقسم الهندسة الإنشائية  
كلية الهندسة - جامعة الإسكندرية  
عضو الجمعية الأمريكية للخرسانة  
دكتوراه في الخرسانة المسلحة وخواص المواد  
جامعة هيوستن - الولايات المتحدة الأمريكية

**شركة:** محطة خلط نلال للخرسانة الجاهزة - الحسين - الساحل الشمالي.  
**الموضوع:** الإشراف على أعمال ضبط الجودة بالمحطة.

**السيد من يهيمه الأمر .....**

تحية طيبة وبعد .....

نفرد بسانتكم علما بأننا قد تم التعاقد بيننا وبين السادة محطة نلال للخرسانة الجاهزة بالعلمين - الساحل الشمالي وذلك للقيام بالإشراف على أعمال ضبط جودة الخرسانات المنتجة بالمحطة وذلك اعتبارا من تاريخ ١٥ يوليو ٢٠٢٤ للقيام بالأعمال التالية:

- ١- تقديم الدعم الفني والاستشاري في مجال تكنولوجيا الخرسانة وفقا للتكود المصري للخرسانة ECP 203 والمواصفات المصرية ESS وكذلك الكود الأمريكي ACI318.
- ٢- تصميم الخلطات الخرسانية اللازمة للمشروعات المختلفة (في حالة طلب العميل) وفقا للمتطلبات الفنية لكل مشروع.
- ٣- اختيار نوعية مواد الخرسانة (الاسمنت والركام والاضافات) وفقا لمواصفات المشروع ونوعية العنصر الإنشائي وسابق الخبرة العملية.
- ٤- متابعة نتائج اختبارات المعينات الخرسانية مع عمل التعديلات اللازمة علي الخلطات الخرسانية عند اللزوم .
- ٥- فحص تشوهات الركام في محطة الخلط وإفتراد العينات الغير مطابقة.
- ٦- مراقبة إنتاج الخرسانة وتطبيق الخلطات التنسيبية في محطة الخلط عن طريق توليد فني متخصص في المحطة طوال السب.
- ٧- قياس درجة حرارة الخرسانة الطازجة والتحقق من قيمتها.

وإن تم تقديم هذا الخطاب بناءا على رغبة محطة نلال للخرسانة الجاهزة.

وتفضلوا بقبول وافر الاحترام....

**أ. د. شفيق شوقي خوري**

*Shafik S. Khoury*  
أ. د. شفيق شوقي خوري  
تصويقه ٢٠٢٤  
في الإسكندرية

أستاذ مقاربة المواد بكلية الهندسة جامعة الإسكندرية  
إستشاري خلطات خرسانية  
عضو لجنة ضبط الجودة بالتكود المصري  
عضو لجنة المواد بالتكود المصري  
عضو لجنة دليل الاختبارات والتكود المصري  
عضو لجنة مواد الدعم FRP بالتكود المصري  
عضو الجمعية الأمريكية للخرسانة ACI

Concrete Consultant  
**Prof. Shafik Khoury**  
ACI Membership 106437  
Egy. Sym. Mem. No. 02940/06  
Consultant No. 05976/01

تحريرا في: ٢٠٢٤/٧/٢٢

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دكتوراه في الخرسانة المسلحة وخواص المواد  
جامعة هيوستن - الولايات المتحدة الأمريكية

### Calibration Certificate of Batch Plant

شهادة معايرة موازين محطة خلط تلال للخرسانة الجاهزة  
أمام قرية هاسيندا باي - سيدى عبد الرحمن - الساحل الشمالى



Prof. Shafik Khoury  
Material Consultant

**Calibration Date: 27/6/2024**

(8 pages + cover)





## Certificates and accreditations

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دكتوراه في الخرسانة المسلحة وخواص المواد  
جامعة هيوستن – الولايات المتحدة الأمريكية

### Calibration Certificate of Batch Plant

Calibration Date:	27/6/2024
Client:	محطة بلاتل للخرسانة الجاهزة أمام قرية هاسيندا باي – سيدى عبد الرحمن – الساحل الشمالي
Mixer Volume:	3.0 m <sup>3</sup>
Max Working Capacity:	2.0 m <sup>3</sup>

#### ١- ملزمة:

هذا التقرير يمثل نتائج معايرة موازين محطة الخلط فقط والتأكد أنها تحقق الحدود المسموح بها بالمواصفة القياسية المصرية م.ق.م ١٠١٢٠ / ١-٢٠٠٦ والمواصفة الأمريكية ASTM C94 ونتائج معايرة الموازين وفقا للجداول التالية:

#### A- Aggregate's Weight Scale

Sensitivity of aggregate's balance = 1.0 kg

Reading No.	Balance Readings (kg)	Actual Readings (kg)	Percentage of Error, %	Correction Factor
1	0	0	***	***
2	80	80	***	***
3	160	160	0.00	1.000
4	240	240	0.00	1.000
5	320	320	0.00	1.000
6	400	400	0.00	1.000
7	480	480	0.00	1.000
8	560	560	0.00	1.000
9	640	640	0.00	1.000
10	720	720	0.00	1.000
11	800	800	0.00	1.000
12	880	880	0.00	1.000
13	960	960	0.00	1.000
14	1040	1040	0.00	1.000
15	1120	1120	0.00	1.000
16	1200	1200	0.00	1.000
17	1280	1280	0.00	1.000
18	1360	1360	0.00	1.000
19	1440	1440	0.00	1.000
20	1520	1520	0.00	1.000
21	1600	1600	0.00	1.000

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### A- Aggregate's Weight Scale

*(Continued)*

Reading No.	Balance Readings (kg)	Actual Readings (kg)	Percentage of Error, %	Correction Factor
22	1680	1680	0.00	1.000
23	1760	1760	0.00	1.000
24	1840	1840	0.00	1.000
25	1920	1920	0.00	1.000
26	2000	2000	0.00	1.000
27	2080	2080	0.00	1.000
28	2160	2160	0.00	1.000
29	2240	2240	0.00	1.000
30	2320	2320	0.00	1.000
31	2400	2400	0.00	1.000
32	2480	2480	0.00	1.000
33	2560	2560	0.00	1.000
34	2640	2640	0.00	1.000
35	2720	2720	0.00	1.000
36	2800	2800	0.00	1.000
37	2880	2880	0.00	1.000
38	2960	2960	0.00	1.000
39	3040	3040	0.00	1.000
40	3110	3120	-0.32	1.003
41	3190	3200	-0.31	1.003
42	3270	3280	-0.31	1.003
43	3350	3360	-0.30	1.003
44	3430	3440	-0.29	1.003
45	3510	3520	-0.28	1.003
46	3590	3600	-0.28	1.003
47	3670	3680	-0.27	1.003
48	3750	3760	-0.27	1.003
49	3830	3840	-0.26	1.003
50	3910	3920	-0.26	1.003
51	3990	4000	-0.25	1.003
52	4070	4080	-0.25	1.002

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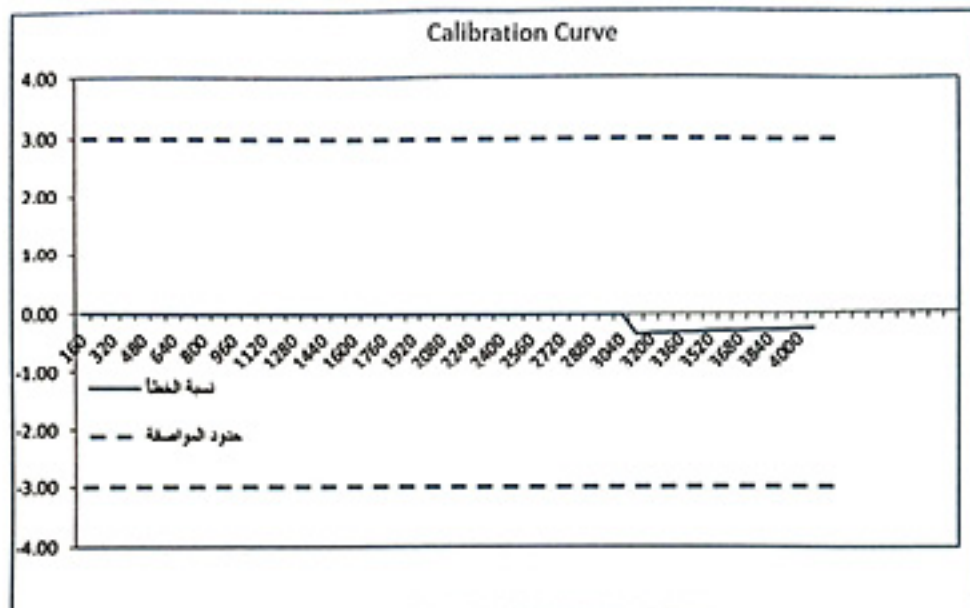


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### A- Aggregate's Weight Scale

*(Continued)*



- Error varies from (-0.32 %) to (0.00 %).

- The accuracy of Aggregate's Balance is accepted up to 4080 kg.





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### B- Cement's Weight Scale

Sensitivity of Cement's balance = 1.0 kg

Reading No.	Balance Readings (kg)	Actual Readings (kg)	Percentage of Error, %	Correction Factor
1	0	0	***	***
2	40	40	0.00	1.000
3	80	80	0.00	1.000
4	120	120	0.00	1.000
5	160	160	0.00	1.000
6	200	200	0.00	1.000
7	240	240	0.00	1.000
8	280	280	0.00	1.000
9	320	320	0.00	1.000
10	360	360	0.00	1.000
11	400	400	0.00	1.000
12	440	440	0.00	1.000
13	480	480	0.00	1.000
14	520	520	0.00	1.000
15	560	560	0.00	1.000
16	600	600	0.00	1.000
17	640	640	0.00	1.000
18	680	680	0.00	1.000
19	720	720	0.00	1.000
20	760	760	0.00	1.000
21	800	800	0.00	1.000
22	840	840	0.00	1.000
23	880	880	0.00	1.000
24	920	920	0.00	1.000
25	960	960	0.00	1.000
26	1000	1000	0.00	1.000



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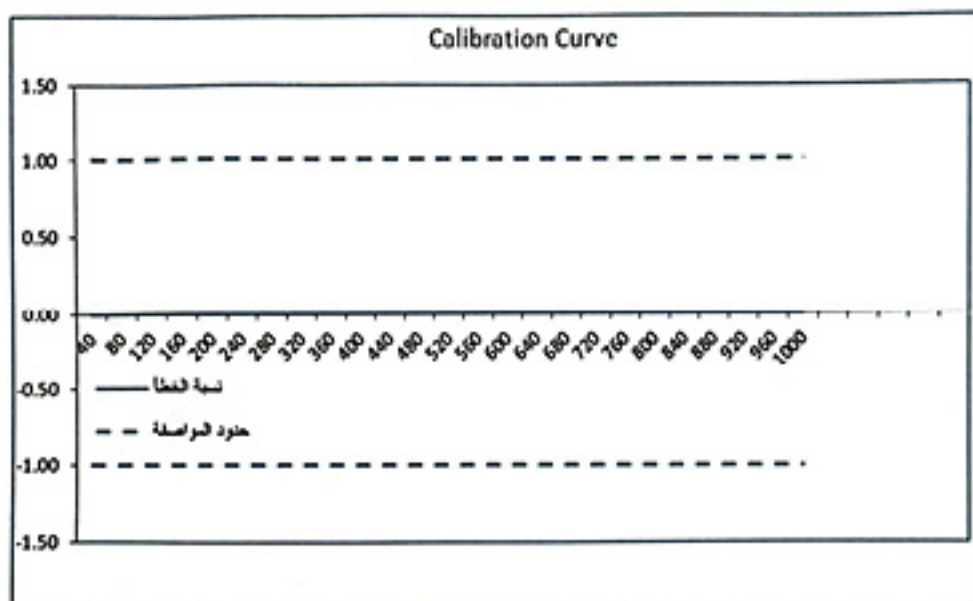
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### R- Cement's Weight Scale (Continued)



- Error Equal (0,00%).
- The accuracy of cement's balance is accepted up to 1000 kg.



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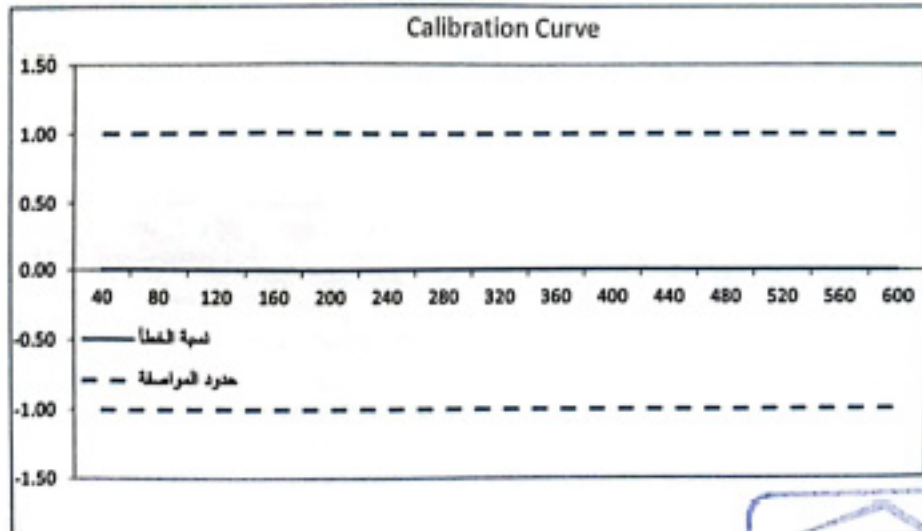
### C- Water's Weight Scale

Sensitivity of Water's balance = 1.0 kg

Reading No.	Balance Readings (kg)	Actual Readings (kg)	Percentage of Error, %	Correction Factor
1	0	0	***	***
2	40	40	0.00	1.000
3	80	80	0.00	1.000
4	120	120	0.00	1.000
5	160	160	0.00	1.000
6	200	200	0.00	1.000
7	240	240	0.00	1.000
8	280	280	0.00	1.000
9	320	320	0.00	1.000
10	360	360	0.00	1.000
11	400	400	0.00	1.000
12	440	440	0.00	1.000
13	480	480	0.00	1.000
14	520	520	0.00	1.000
15	560	560	0.00	1.000
16	600	600	0.00	1.000

- Error Equal (0.00%).

- The accuracy of water's balance is accepted up to 600 kg.





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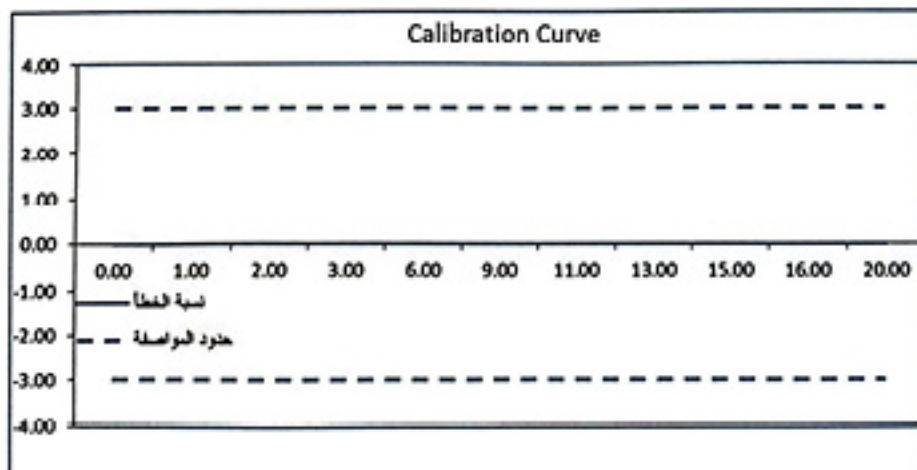
### D- Additive's Weight Scale

Sensitivity of Additive's balance = 0.01 kg

Reading No.	Balance Readings (kg)	Actual Readings (kg)	Percentage of Error, %	Correction Factor
1	0.00	0.00	***	***
2	1.00	1.00	0.00	1.000
3	2.00	2.00	0.00	1.000
4	3.00	3.00	0.00	1.000
5	6.00	6.00	0.00	1.000
6	9.00	9.00	0.00	1.000
7	11.00	11.00	0.00	1.000
8	13.00	13.00	0.00	1.000
9	15.00	15.00	0.00	1.000
10	16.00	16.00	0.00	1.000
11	20.00	20.00	0.00	1.000

- Error Equal (0.00%).

- The accuracy of Additive's Balance is accepted up to 20.00 kg.



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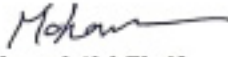
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### الخلاصة

- بناءاً على نتائج المعايرة لمحطة خلط تلال للخرسانة الجاهزة أمام قرية هاسيندا باي – سيدى عبد الرحمن – الساحل الشمالى موضوع التقرير يتضح أن نسبة الخطأ لموازين الركام والأسمنت والمياه والإضافات الكيميائية كلها في حدود المسموح بها طبقاً للمواصفات القياسية المصرية م.ق. م ٥١٣٠-٢٠٠٦/١ والمواصفة الأمريكية ASTM C 94.
- يجب أن تلتزم المحطة باشتراطات الكود المصرى لتصميم وتنفيذ المنشآت الخرسانية رقم ٢٠٣ لعام ٢٠٢٠ من حيث جودة المواد واعتماد مصادرها ودورية اختبارها وتوفير متطلبات ضبط الجودة الداخلى والخارجى وإستكمال باقى العناصر اللازم توافرها بالمحطة .

*Calibrated by*

  
**Mohamed Abd-Elatif,**  
Lab. Engineer.

*Checked by*

  
**Wafia Hassan,**  
Senior. Engineer.

*Approved by*



## Certificates and accreditations

**Advanced Materials Services**  
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and Quality Control  
81 ElTabia St., Mahmodeya, Ragheb,  
Alexandria



**خدمات المواد المتقدمة**  
اختبارات - استشارات - ضبط جودة  
81 شارع الطابية، طريق المحمودية - راجب، الإسكندرية  
Tel: 03/33629444

### Certification for Ready Mixed Concrete Production Facility TILAL Batch Plant

معبرة محطة تلال - للخرسانة الجاهزة - العالمين  
Alamein, Egypt  
Operated by TILAL

#### 1. Introduction

This certificate describes the calibration of the already constructed batch plant (TILAL) at Alamein, Egypt, operated by TILAL. The certificate comprises of the calibration of the different weighing and measuring devices of the batch plant, following the National Ready Mixed Concrete Association (NRMCA) QC Manual - Section 3 - Plant Certification, Tenth Revision, December 2007.

#### 1. Batch Plant Basic Information:

Mixer capacity	: 2.25m3
Location	: Alamein
Date of Calibration	: 7/06/2024
Date of next calibration	: 7/06/2025

#### 1.1 Calibration of Measuring Devices

The calibration of the different measuring devices of the batch plant is illustrated in the following sections. This includes the measuring devices for admixtures, water, aggregate, and cement. All of the devices have been calibrated using known weights. A pre-calibrated 20 kg. masses were used for weight method. The calibration certificate (issued and sealed by a governmental agency for calibration) for the 20 kg. masses is included in the appendix (in Arabic) and it certifies that these masses are calibrated by the agency.

#### 1.1.1 Admixture Dispenser

The admixture dispenser was calibrated through weight measurements through water calibrated container. First, the amount of water was added in the dispenser, and then the reading in the control panel of the batch plant was taken to the nearest 0.01 Kg. The comparison between the actual volume and the digital reading is given in Table (1) and shown in Fig. (1).





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Table (1) Calibration Values and Deviation for Admixture Dispenser.  
SN: 100263

Actual weight (Kg)	Panel Reading (Kg)	Deviation (Kg)	Deviation %
2	2.00	0.00	0.00
4	4.00	0.00	0.00
6	6.00	0.00	0.00
8	8.00	0.00	0.00
10	10.10	0.10	1.00
12	12.10	0.10	0.83
14	14.10	0.10	0.71
16	16.10	0.10	0.63
18	18.10	0.10	0.56
19	19.10	0.10	0.53
20	20.10	0.10	0.50
21	21.10	0.10	0.48
22	22.10	0.10	0.45
23	23.00	0.00	0.00
24	24.20	0.20	0.83
25	25.20	0.20	0.80
26	26.20	0.20	0.77

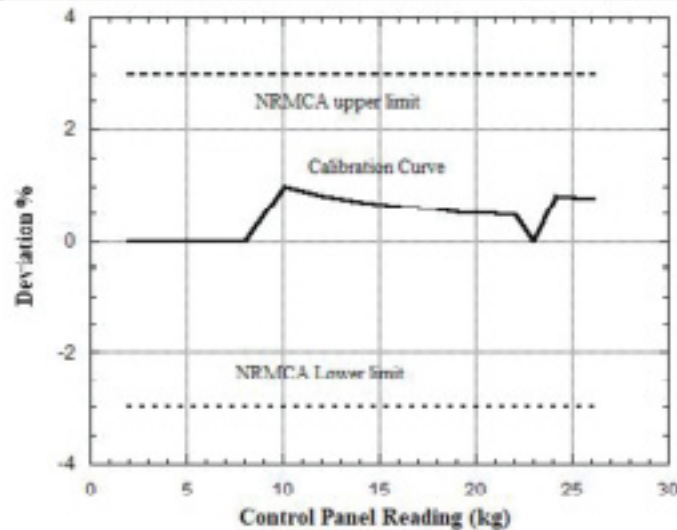


Fig. (1) Calibration Chart and NRMCA Limits For Admixture Dispenser

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81 شارع الطابية - طريق المعمرية - راجب - الإسكندرية  
Tel: 03/33629444

### 1.1.2 Cement

The cement weighing device was calibrated through pre-calibrated masses 20-kg. Each in the of range 0 to 1100 kg. First, certain weight was put on the cement balance and the weight was symmetrically located with respect to the three weighing-measuring sensors of the balance and the control panel reading was recorded. The sensitivity of the balance is 1.0 kg., and the comparison between the actual weights and the digital reading is given in Table (2) and shown in Fig. (2).

Table (2) Calibration Values and Deviation for Cement  
SN: 100260

Actual Weight (kg)	Control Panel Reading (kg)	Deviation (kg.)	Deviation %
0	0	0	0.00
100	100	0.00	0.00
200	200	0.00	0.00
300	300	0.00	0.00
400	400	0.00	0.00
500	498	-2.00	-0.40
600	598	-2.00	-0.33
700	698	-2.00	-0.29
800	798	-2.00	-0.25
900	898	-2.00	-0.22
1000	998	-2.00	-0.20
1100	1096	-4.00	-0.36

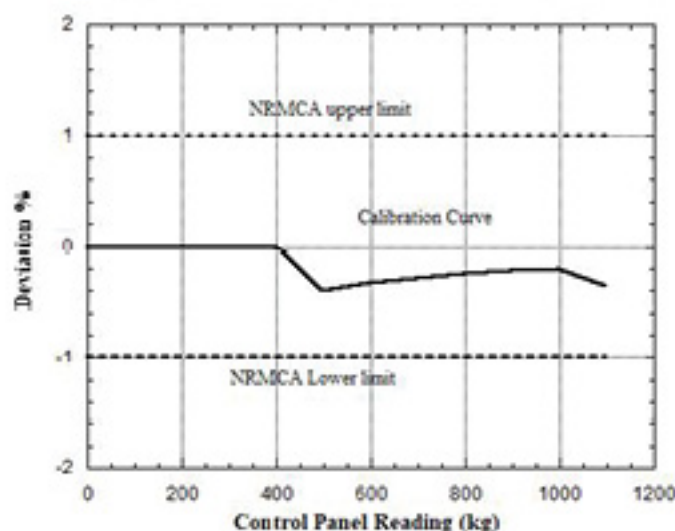


Fig. (2) Calibration Chart and NRMCA Limits For Cement

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81 شارع الطابية، طريق المحمودية، نجايب، الإسكندرية  
Tel: 03/33629444

### 1.1.3 Water

The water weighing devise was calibrated through pre-calibrated weights of 20-kg of water each in the range 0 to 480 kg. First, certain weight was put on the water tank balance and the control panel reading was reordered. The sensitivity of the balance is 1 kg., and the comparison between the actual weights and the digital reading is given in Table (3) and shown in Fig. (3).

Table (3) Calibration Values and Deviation for Water

SN: 100270

Actual Weight (kg)	Control Panel Reading (kg)	Deviation (kg.)	Deviation %
0	0	0.00	0.00
80	80	0.00	0.00
160	160	0.00	0.00
240	240	0.00	0.00
320	320	0.00	0.00
400	400	0.00	0.00
480	480	0.00	0.00

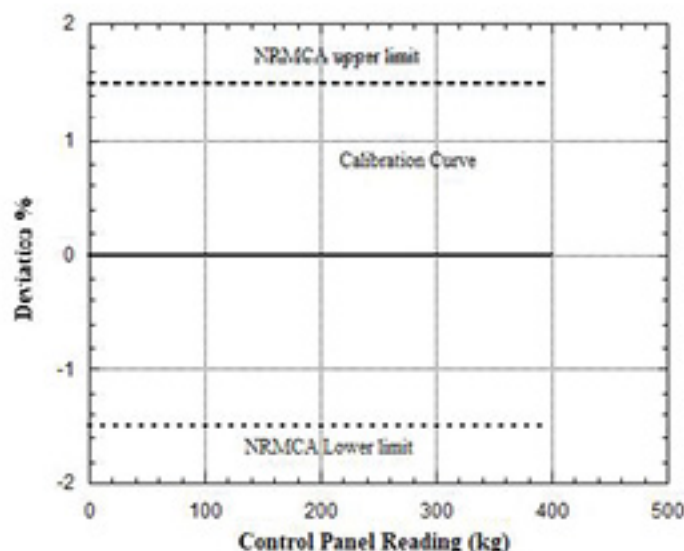


Fig. (3) Calibration Chart and NRMCA Limits For Water





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### 1.1.4 Aggregate

The aggregate weighing devise was calibrated through pre-calibrated masses 20-kg. Each in the of range 0 to 4200 kg. First, certain weight was put on the aggregate balance and the weight was symmetrically located with respect to the belt conveyor and the weighing-measuring sensors of the balance and the control panel reading was reordered. The sensitivity of the balance is 5kg., and the comparison between the actual weights and the digital reading is given in Table (4) and shown in Fig. (4).

Table (4) Calibration Values and Deviation for Aggregate

SN: 100267

Actual Weight (kg)	Control Panel Reading (kg)	Deviation (kg.)	Deviation %
0	0	0	0.00
200	198	-2.00	-1.00
400	396	-4.00	-1.00
600	595	-5.00	-0.83
800	800	0.00	0.00
1000	1000	0.00	0.00
1200	1200	0.00	0.00
1400	1400	0.00	0.00
1600	1605	5.00	0.31
1800	1805	5.00	0.28
2000	2010	10.00	0.50
2200	2210	10.00	0.45
2400	2410	10.00	0.42
2600	2610	10.00	0.38
2800	2810	10.00	0.36
3000	3015	15.00	0.50
3200	3215	15.00	0.47
3400	3415	15.00	0.44
3600	3620	20.00	0.56
3800	3820	20.00	0.53
4000	4020	20.00	0.50
4200	4220	20.00	0.48



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### 1.1.3 Water

The water weighing devise was calibrated through pre-calibrated weights of 20-kg of water each in the range 0 to 480 kg. First, certain weight was put on the water tank balance and the control panel reading was reordered. The sensitivity of the balance is 1 kg., and the comparison between the actual weights and the digital reading is given in Table (3) and shown in Fig. (3).

Table (3) Calibration Values and Deviation for Water

SN: 100270

Actual Weight (kg)	Control Panel Reading (kg)	Deviation (kg.)	Deviation %
0	0	0.00	0.00
80	80	0.00	0.00
160	160	0.00	0.00
240	240	0.00	0.00
320	320	0.00	0.00
400	400	0.00	0.00
480	480	0.00	0.00

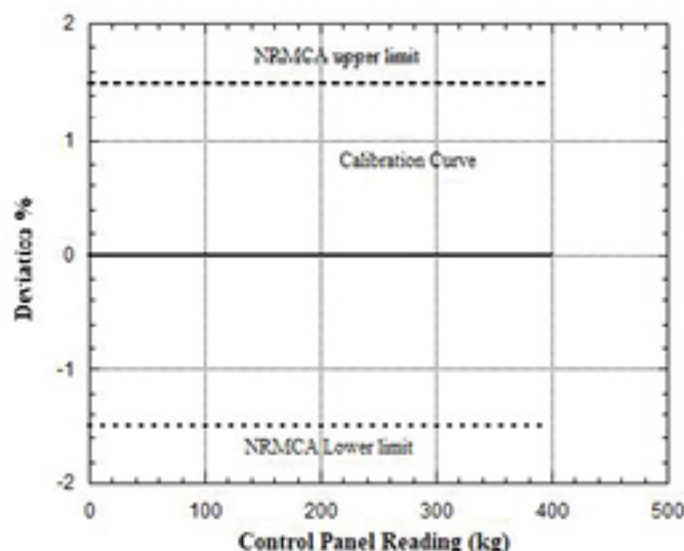


Fig. (3) Calibration Chart and NRMCA Limits For Water



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### 1.1.4 Aggregate

The aggregate weighing device was calibrated through pre-calibrated masses 20-kg. Each in the of range 0 to 4200 kg. First, certain weight was put on the aggregate balance and the weight was symmetrically located with respect to the belt conveyor and the weighing-measuring sensors of the balance and the control panel reading was reordered. The sensitivity of the balance is 5kg., and the comparison between the actual weights and the digital reading is given in Table (4) and shown in Fig. (4).

Table (4) Calibration Values and Deviation for Aggregate

SN: 100267

Actual Weight (kg)	Control Panel Reading (kg)	Deviation (kg.)	Deviation %
0	0	0	0.00
200	198	-2.00	-1.00
400	396	-4.00	-1.00
600	595	-5.00	-0.83
800	800	0.00	0.00
1000	1000	0.00	0.00
1200	1200	0.00	0.00
1400	1400	0.00	0.00
1600	1605	5.00	0.31
1800	1805	5.00	0.28
2000	2010	10.00	0.50
2200	2210	10.00	0.45
2400	2410	10.00	0.42
2600	2610	10.00	0.38
2800	2810	10.00	0.36
3000	3015	15.00	0.50
3200	3215	15.00	0.47
3400	3415	15.00	0.44
3600	3620	20.00	0.56
3800	3820	20.00	0.53
4000	4020	20.00	0.50
4200	4220	20.00	0.48





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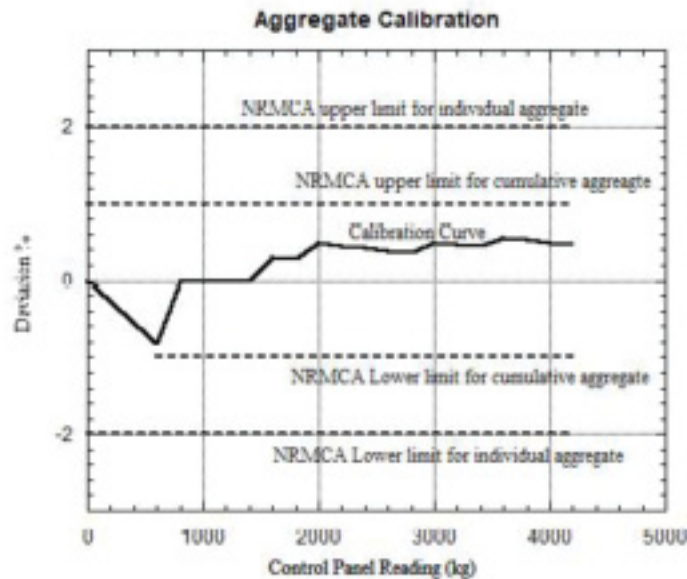


Fig. (4) Calibration Chart and NRMCA Limits For Aggregate

## 1.2 Conclusion

Based on the calibration conducted for the newly constructed batch plant  
(TILAL) **معطة تلال - للخرسانة الجاهزة - العالعين (TILAL)**

**Alamein, Egypt operated by TILAL**

We can conclude that the batch plant fulfills all the NRMCA requirements and limits  
with respect to admixtures, water, aggregate, and cement.

Calibrated by

Advanced Materials' Services



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### Lab Trial for concrete mix design

Date of Report : 16/02/2025  
Client : Inventio for construction chemicals  
Project : جزيرة العامين  
Characteristic Strength  $f_{cu}$  : 350  $kg/cm^2$

components for 1.0 m <sup>3</sup> of concrete:			
Raw material ID	Weights. kg/m <sup>3</sup>	Properties	Source
Cement:	400	CEM III	الوطنية - بني سويف
Fine-Agg (Sand)	775	F.M = 2.99	
C.Stone Ls #1	655	N.M.A.S: 12.5 mm	
C.Stone Ls #2	435	N.M.A.S: 25.0 mm	
Total Water	165	Wtotal/C:	0.41
Admixture:	8.0	2041	

Casting Date: 19/01/2025

Workability			
Initial Shump =	Collapse	Temp °C	21.1
Shump @30 mins =	23.0 cm		
Shump @60 mins =	21.5 cm		

Cube ID	Age	Weight. Kg	Comp.Strength.kg/cm <sup>2</sup>	Average
Spc.1	3 days	8.300	254	265
Spc.2		8.250	264	
Spc.3		8.350	278	
Spc.4	7 days	8.300	376	354
Spc.5		8.300	357	
Spc.6		8.350	329	
Spc.7	28 days	8.400	437	449
Spc.8		8.400	460	
Spc.9		8.350	450	

Tested by : Ibrahim Ali  
Lab Engineer : Eng. Eman Ali




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Date of Report : 16/02/2025  
Client : Inventio for construction chemicals  
Project : جزيرة العطين  
Characteristic Strength  $f_{cu}$  : 350  $kg/cm^2$

components for 1.0 m <sup>3</sup> of concrete:			
Raw material ID	Weights. kg/m <sup>3</sup>	Properties	Source
Cement:	400	CEM III	الوطنية - بني سويف
Fine Agg (Sand)	775	FM = 2.99	
C.Stone Ls #1	655	N.M.A.S: 12.5 mm	
C.Stone Ls #2	435	N.M.A.S: 25.0 mm	
Total Water	165	Wtotal/C:	0.41
Admixture:	7.5	2028	

Casting Date: 19/01/2025

Workability			
Initial Slump =	Collapse	Temp °C	21.0
Slump @30 mins =	22.0 cm		
Slump @60 mins =	21.0 cm		

Cube ID	Age	Weight. Kg	Comp.Strength.kg/cm <sup>2</sup>	Average
Spc.1	3 days	8.100	275	263
Spc.2		8.300	257	
Spc.3		8.150	257	
Spc.4	7 days	8.000	338	359
Spc.5		8.250	366	
Spc.6		8.400	373	
Spc.7	28 days	8.050	393	408
Spc.8		8.300	425	
Spc.9		8.350	405	

Tested by : Mohamed Ibrahim  
Lab Engineer : Eng. Eman Ali






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### Lab Trial for concrete mix design

Date of Report : 19/02/2025  
Client : Inventio for construction chemicals  
Project : جزيرة العامين  
Characteristic Strength  $f_{cu}$  : 350  $kg/cm^2$

components for 1.0 m <sup>3</sup> of concrete:			
Raw material ID	Weights. kg/m <sup>3</sup>	Properties	Source
Cement:	450	CEM I 52.5 N	الوطنية - بني سويف
Fine-Agg (Sand)	750	F.M = 2.99	
C.Stone Ls #1	635	N.M.A.S: 12.5 mm	
C.Stone Ls #2	425	N.M.A.S: 25.0 mm	
Total Water	175	Wtotal/C:	0.39
Admixture:	8.0	2028	

Casting Date: 22/01/2025

Workability			
Initial Shump =	24.0 cm	Temp °C	20.8
Shump @30 mins =	20.0 cm		
Shump @60 mins =	18.0 cm		

Cube ID	Age	Weight. Kg	Comp.Strength.kg/cm <sup>2</sup>	Average
Spc.1	3 days	8.300	317	312
Spc.2		8.300	324	
Spc.3		8.100	295	
Spc.4	7 days	8.250	424	434
Spc.5		8.100	446	
Spc.6		8.450	432	
Spc.7	28 days	8.300	524	530
Spc.8		8.350	539	
Spc.9		8.400	528	

Tested by : Mohamed Ibrahim  
Lab Engineer : Eng. Eman Ali




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### Lab Trial for concrete mix design

Date of Report : 19/02/2025  
Client : Inventio for construction chemicals  
Project : جزيرة العامين  
Characteristic Strength  $f_{cu}$  : 350  $kg/cm^2$

components for 1.0 m <sup>3</sup> of concrete:			
Raw material ID	Weights. kg/m <sup>3</sup>	Properties	Source
Cement:	450	CEM I 52.5 N	الوطنية - بني سويف
Fine Agg (Sand)	750	FM = 2.99	
C.Stone Ls #1	635	N.M.A.S: 12.5 mm	
C.Stone Ls #2	425	N.M.A.S: 25.0 mm	
Total Water	175	Wtotal/C:	0.39
Admixture:	8.0	2041	

Casting Date: 24/01/2024

Workability				
Initial Slump =	Collapse	cm	Temp °C	20.5
Slump @30 mins =	23.0	cm		
Slump @60 mins =	22.0	cm		

Cube ID	Age	Weight. Kg	Comp.Strength.kg/cm <sup>2</sup>	Average
Spc.1	3 days	8.050	308	320
Spc.2		8.250	318	
Spc.3		8.250	335	
Spc.4	7 days	8.250	452	443
Spc.5		8.350	445	
Spc.6		8.300	432	
Spc.7	28 days	8.250	514	510
Spc.8		8.300	507	
Spc.9		8.300	510	

Tested by : Mohamed Ibrahim  
Lab Engineer : Eng. Eman Ali




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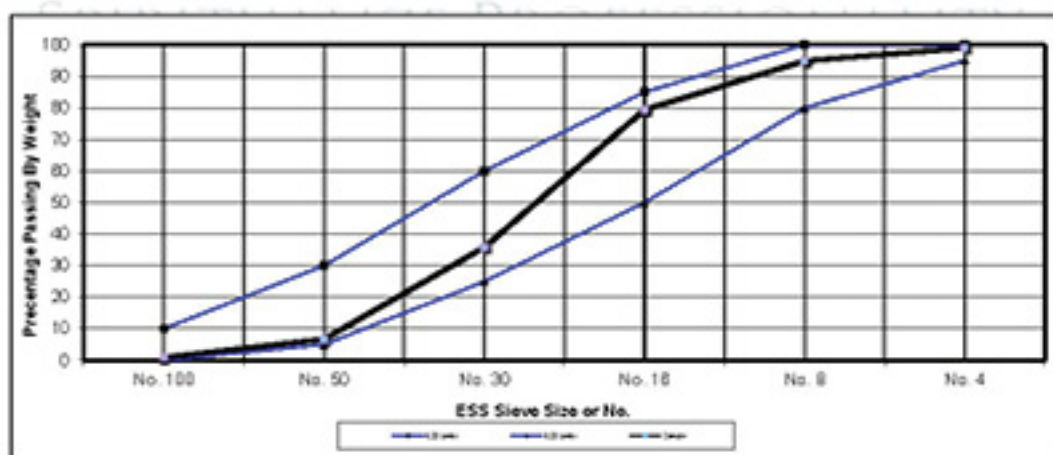
### GRADING OF SAND

ASTM C33

client : محطة تلال للخرسانة الجاهزة  
Project : نيو مزارين - العنمين الجديدة  
Date of test: 13/06/2024  
Sample : Sand

Sieve No.	No. 4	No. 8	No. 16	No. 30	No. 50	No. 100
Limits	95.0	80.0	50.0	25.0	5.0	0.0
% Passing	100.0	100.0	85.0	60.0	30.0	10.0
% Passing by weight	99.0	94.9	79.4	35.80	6.70	0.90

Fineness Modulus : 2.83



Tested by  
Mahmoud Mamdouh



Lab Engineer  
Etraa Elrefaey

*Etraa Elrefaey*



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**Determination of Materials Finer than 75  $\mu$ m in Aggregates  
by Washing on Sieve No. 200**

Date:

13/06/2024

Client:

محطة تلال للخرسانة الجاهزة

Project :

نيو مزارين - العلمين الجديدة

Description of sample: Sand

**Results and Acceptance Limits:**

- |                                       |   |       |
|---------------------------------------|---|-------|
| - Materials finer than 75 $\mu$ m     | = | 2.1 % |
| - Limits According to <i>ECCS 203</i> | = | 3.0 % |

**Note:** Sample was taken and delivered by the client.

Tested by  
Mahmoud Mamdouh



Lab Engineer  
Esraa Elrefaey



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### Determination of unit weight of Fine aggregate

Date: 13/06/2024  
Client: محطة تلأل للخرسانة الجاهزة  
Project : فيو مزارين - العلمين الجديدة

Description of sample: Sand

Results :

Compacted unit weight of fine Aggregate = 1.77 gm/cm<sup>3</sup>

Loose unit weight of fine Aggregate = 1.63 gm/cm<sup>3</sup>

Note: Sample was taken and delivered by the client

Tested by  
Mahmoud Mamdouh



Lab Engineer  
Esraa Elrefaey



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**Determination of physical properties of fine aggregate**  
**(Apparent Specific gravity, Absorption percent)**

Date: 13/06/2024  
Client: محطة تلال للخرسانة الجاهزة  
Project : نيو مزارين - العلمين الجديدة

Description of sample: Sand

Results :

Specific gravity (S.G) = 2.63

Absorption percent = 1.2

Note: Sample was taken and delivered by the client.

Tested by  
Mahmoud Mamdouh



Lab Engineer  
Esraa Elrefaey





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### GRADING OF COARSE AGGREGATE [ STONE ]

Nominal Size = 9.5 to 2.36 mm (3/8 in to No.8)

Size Number 9.5 mm

ASTM C136

Client :

محطة تلأل للخرسانة الجاهزة

Project :

نيو مزارين - العلمين الجديدة

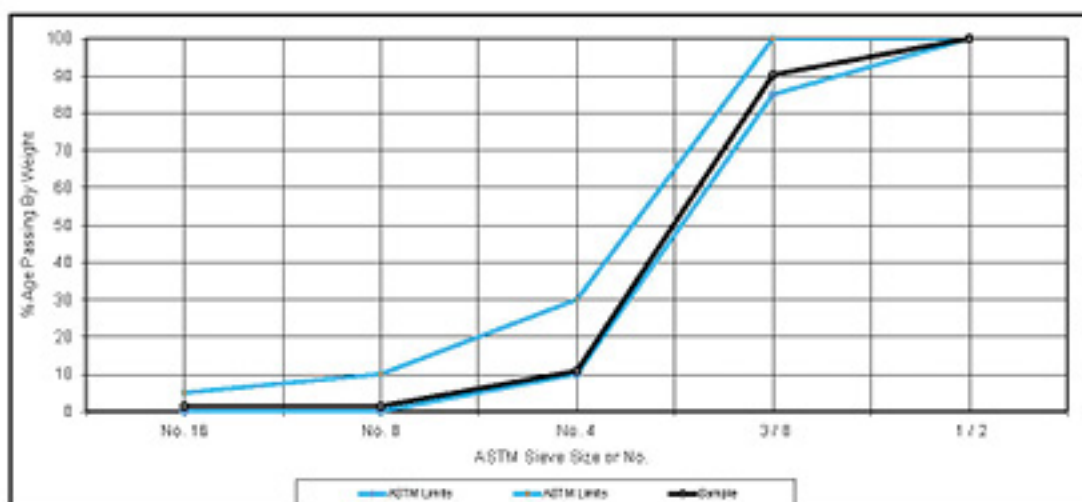
Date of test :

13/06/2024

Sample :

Agg 1

ASTM Sieve No.	1 / 2 in	3 / 8 in	No. 4	No. 8	No. 16
ASTM Limits	100.0	85.0	10.0	0.0	0.0
% Age Passing	100.0	100.0	30.0	10.0	5.0
% Age Passing by weight	100.0	90.3	10.8	1.4	1.4



Tested by  
Mahmoud Mamdouh



Lab Engineer  
Esraa Elrefaey



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**Determination of Materials Finer than 75  $\mu$ m in Aggregates  
by Washing on Sieve No. 200**

Date: 13/06/2024  
Client: محطة نلال للخرسانة الجاهزة  
Project : نيو مزارين - العمين الجديدة

Description of sample: Coarse Aggregate 3/8 "

**Results and Acceptance Limits:**

- Materials finer than 75 $\mu$ m	=	1.20 %
- Limits According to <i>ENCS 203</i>	=	3.00 %

**Note:** Sample was taken and delivered by the client.

Tested by  
Mahmoud Mamdouh



Lab Engineer  
Esraa Elrefaey



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Ragheb Basha, Alexandria, Egypt

### Determination of unit weight of Coarse aggregate

**Date:** 13/06/2024  
**Client:** محطة نلال للخرسنة الجاهزة  
**Project :** نيو مزارين - العلمين الجديدة

**Description of sample:** Coarse Aggregate 3/8 "

#### **Results :**

**Compacted unit weight of Coarse Aggregate = 1.42 gm/cm<sup>3</sup>**  
**Loose unit weight of Coarse Aggregate = 1.25 gm/cm<sup>3</sup>**

Note: Sample was taken and delivered by the client.

**Tested by**  
Mahmoud Mamdouh



**Lab Engineer**  
Esraa Elrefaey





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**Determination of physical properties of coarse aggregate**  
**(Apparent Specific gravity, Absorption percent)**

Date: 13/06/2024  
Client: محطة تلال للخرسانة الجاهزة  
Project : نيو مزارين - العلمين الجديدة

Description of sample: Coarse Aggregate 3/8 "

**Results :**

Specific gravity (S.G) = 2.65

Absorption percent = 1.77 %

Note: Sample was taken and delivered by the client.

Tested by  
Mahmoud Mamdouh



Lab Engineer  
Esraa Elrefaey



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Ragheb Basha, Alexandria, Egypt

### GRADING OF COARSE AGGREGATE [ STONE ]

Nominal Size = 25.0 to 9.5 mm (1 to 3/8 in.)

Size Number 25.0 mm

ASTM C136

Client :

محطة تلال للخرسانة الجاهزة

Project :

نيو مزارين - العلمين الجديدة

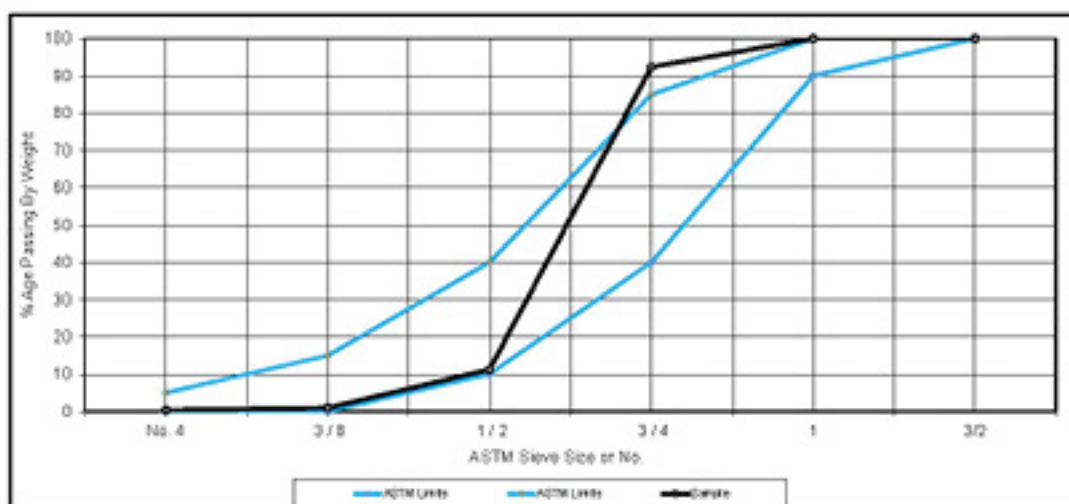
Date of test :

13/06/2024

Sample :

Agg 2

ASTM Sieve No.	3/2 in	1.0 in	3/4 in	1/2 in	3/8 in	No. 4
ASTM Limits	100.0	90.0	40.0	10.0	0.0	0.0
% Age Passing	100.0	100.0	85.0	40.0	15.0	5.0
% Age Passing by weight	100.0	100.0	92.4	11.2	1.0	0.3



Tested by  
Mahmoud Mamdouh



Lab Engineer  
Esraa Elrefaey



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### Determination of Materials Finer than 75 $\mu$ m in Aggregates by Washing on Sieve No. 200

Date: 13/06/2024  
Client: محطة نلال للخرسانة الجاهزة  
Project : نيو مزارين - العلمين الجديدة

Description of sample: Coarse Aggregate 1 "

#### Results and Acceptance Limits:

- Materials finer than 75  $\mu$ m = 1.50 %  
- Limits According to *ECCS 201* = 3.00 %

Note: Sample was taken and delivered by the client.

Tested by  
Mahmoud Mamdouh



Lab Engineer  
Esraa Elrefaey





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### Determination of unit weight of Coarse aggregate

**Date:** 13/06/2024  
**Client:** محطة تلال للخرسانة الجاهزة  
**Project :** نيو مزارين - العلمين الجديدة

**Description of sample:** Coarse Aggregate 1 "

**Results :**

Compacted unit weight of Coarse Aggregate = 1.48 gm/cm<sup>3</sup>

Loose unit weight of Coarse Aggregate = 1.30 gm/cm<sup>3</sup>

Note: Sample was taken and delivered by the client.

Tested by  
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Esraa Elrefaey



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**Determination of physical properties of coarse aggregate**  
**(Apparent Specific gravity, Absorption percent)**

Date: 13/06/2024  
Client: محطة تلال للخرسانة الجاهزة  
Project : نيو مزارين - العلمين الجديدة

Description of sample: Coarse Aggregate 1 "

Results :

Specific gravity (S.G) = 2.65

Absorption percent = 2.10 %

Note: Sample was taken and delivered by the client.

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Lab Engineer  
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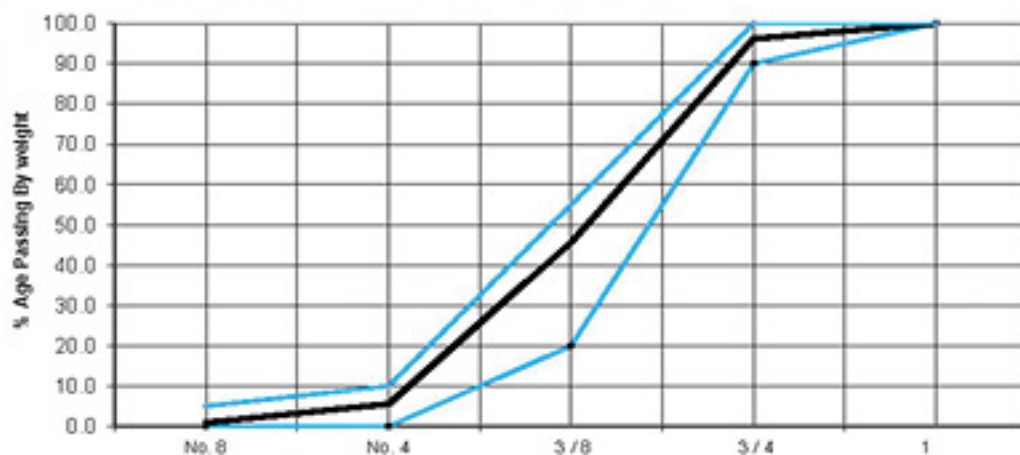
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### GRADING OF COARSE AGGREGATE [ ALL-STONE ] N.M.S. 3/4 in.

Client : محطة تلال للخرمقة الجاهزة  
Project : نيو مزارين - العلمين الجديدة  
Date of test : 13/06/2024

Sample : Mix of (Stone 2:Stone1),Ratio of respectively.  
50% 50%

ASTM Sieve No.	1 in	3/4 in	3/8 in	No. 4	No. 8
ASTM Limits	100.0	90.0	20.0	0.0	0.0
% Passing	100.0	100.0	55.0	10.0	5.0
% Passing by weight	100.0	96.2	45.6	5.6	0.9



Tested by  
Mahmoud Mamdouh



Lab Engineer  
Esraa Elrefaey





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## Chemical analysis for Fine Aggregate

Date of report : 13/06/2024  
Client: محطة تلال للخرسانة الجافة  
Project: نيو مزارين - العلمين الجديدة  
Description of sample: Sand  
Specification followed: BS 812 - Part 117&118

### Results:

Item	chemical analysis	Content %	Specification limits BS 812 - Part 117&118
1	Chlorides (Cl <sup>-</sup> )	0.0195	0.06%
2	Total sulfates SO <sub>3</sub>	0.1293	0.4%

### Note

Chemical analysis of the sample satisfies the specification limits of BS 812 - Part 117&118

Tested by:  
A.R



Lab Engineer :  
Esraa Elrefaay



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### Chemical analysis for Coarse Aggregate

Date of report : 13/06/2024  
Client: محطة نال للخرسنة الجاهزة  
Project: تيو مزارين - العنمين الجديدة  
Description of sample: AGG#1  
Specification followed: BS 812 - Part 117&118

#### Results:

Item	chemical analysis	Content %	Specification limits BS 812 - Part 117&118
1	Chlorides (Cl)	0.0138	0.04%
2	Total sulfates SO <sub>3</sub>	0.2698	0.4%

#### Note

- 1-Chemical analysis of the sample satisfies the specification limits
- 2-Acid Soluble sulphate.
- 3-Chloride test was done without crushing.
- 4- The Results represent the tested samples only.

Tested by:  
A.R



Lab Engineer :  
Esraa Elrefaey



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### Chemical analysis for Coarse Aggregate

Date of report : 13/06/2024  
Client: محطة تلال لتخرسقة الجاهزة  
Project: نيو مزارين - العنمين الجديدة  
Description of sample: AGG#2  
Specification followed: BS 812 - Part 117&118

#### Results:

Item	chemical analysis	Content %	Specification limits BS 812 - Part 117&118
1	Chlorides (Cl)	0.0139	0.04%
2	Total sulfates SO <sub>3</sub>	0.2725	0.4%

#### Note

- 1-Chemical analysis of the sample satisfies the specification limits
- 2-Acid Soluble sulphate.
- 3-Chloride test was done without crushing.
- 4- The Results represent the tested samples only.

Tested by:  
A.R



Lab Engineer :  
Esraa Elrefaey







## Contact Us

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