



TARMAC

SOIL AND MATERIAL TESTING LABORATORY LLC

Solutions Through Science

Independent Testing Laboratories and Material Consultants

ISO/IEC 17025:2005 ACCREDITED, ISO 9001:2015

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Background

Introduction

Tarmac Soil and Material Testing Laboratory LLC is pleased to introduce our advanced laboratory facilities in the Emirate of Dubai. The main laboratory is located at Qusais Industrial area 3 in Dubai. This strategically convenient location is designed to provide an outstanding technical support and assistance to a wide variety of Engineering Consultancy Firms, Testing Laboratories and Construction Companies throughout the greater Dubai metropolitan area.

The current operating location for Tarmac Soil and Material Testing Laboratory LLC is

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This document highlights the wide range of expertise and knowledge acquired through diverse experience and exposure of our team in different spheres of Civil engineering disciplines. Furthermore, it identifies the tools and services which our facilities have in store to offer. In pages that follow, we aim to outline the mode of operation of our services and will describe how we intend to satisfy all the requirements of our testing needs. This will demonstrate clear benefits to customers in opting for Tarmac Soil and Material Testing Laboratories, considering the fast track, high volume and potentially diverse nature of testing required.

Tarmac Soil and Material Testing Laboratories proudly presents to you our team in possession of an appreciable 30 years of diverse experience in wide variety of disciplines in different Civil Engineering fields including but not limited to Infrastructure, Bridge and highway structures, and Commercial & residential buildings, Building Condition examination and Concrete Investigation. We believe we have a strong core team of highly qualified individuals to proficiently undertake any of your projects need. We also have highly qualified staff with several decades of experience in the field of Environmental and Analytical Services and also Metallurgy testing.

Tarmac Soil and Material Testing laboratory shall always be committed to offer the highest standard of work offering the best quality services to better serve our clients. Our professional practices shall at all time adopt the latest ASTM, BS and EN Standard.



Scope of Activities

Tarmac Laboratories shall undertake the responsibility of Sampling, Handling and Testing of different type of material. This shall include but not limit to proper sampling at site and transportation of test samples from Job site to the Laboratory, careful handling of samples during sampling and transportation and storage of the test sample at our facilities. Our Laboratory is designed to provide the required temperature control area and is equipped with the latest machinery to undertake the necessary requested test.

Tests will be conducted using the most advanced test equipment's. These equipment's shall always be calibrated and carefully maintained and monitored to accurately produce the best possible results. All sampling, handling and testing of material shall adhere to the specifications provided by our client and will accurately be carried out in accordance with the latest required applicable codes.

Tarmac Soil and Material Testing Laboratory is confident that it can successfully manage the high volume of testing required, to the customer's deadlines and can continue to do so throughout the project. Tarmac Soil and Material Testing Laboratory is a true one-stop-shop for all the material testing service that a customer require.

Our testing capabilities are presented in Appendix D



Laboratory Establishment

Our Laboratory facilities are both strategically and conveniently located to serve wide range of projects scaping across the geographical spread of Dubai in its entirety and Northern Emirates of the UAE.



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Qusais Laboratory (Main) Est. 2007

Our main laboratory facility is situated in Al Qusais Industrial Area-3, Dubai, effortlessly approachable for projects in both the midlands of Dubai and the Northern Emirates in the UAE.

Jebel Ali Laboratory (Branch) Est. 2017

Our branch laboratory is situated in Jebel Ali Industrial Area-1, conveniently accessible from the eye of endless expanse of infrastructural development in progress across the modern Dubai as we see it today.

Our spacious facilities are equipped with all the essential apparatus and test equipment's with sufficient area provided to test control and carefully store all samples of materials. Our temperature control facility is designed to properly preserve all test samples. Our objective is to provide the best accurate results for all the tests carried out inside the laboratory and in the field.

The laboratory service would be divided into two principal sections; these being test conducted in our Laboratory and Field Testing and Sampling activities. Each area would fall under the responsibility of our Laboratory Manager, who would act as a single point of contact between Tarmac Soil and Material Testing Laboratory and other parties.

All coordination and integration with other on-site agencies would be devised by our Laboratory Manager and Laboratory Supervisor, to ensure not only Tarmac Soil and material Testing Laboratory quality assurance are met, but also those using the laboratory.



The Tarmac Soil and Material Testing Laboratory provide testing services. No other services are provided that could place the laboratory in a position where conflicting interest could be a concern. Responsibilities of key personnel that are involved and have influence on testing are defined.

Tarmac Soil and Material Testing Laboratory will do everything possible to assure that its customers receive the best possible service while maintaining the utmost confidentiality when required. This may include, however is not limited to:

- ▶ Cooperating with customers in the clarification of test requests and the performance of said tests.
- ▶ Affording customers access to the laboratory to witness testing when requested.
- ▶ Prepare, package and dispatch test item and reports as required by our customers for verification purposes.
- ▶ Advise, guide and communicate with our customer in technical matters, opinions and interpretations in regards to testing performed or to be performed.
- ▶ Communicate to our customers any major deviations in testing being performed.
- ▶ Communicate to the customers any delays that may result in the customer not receiving their testing in a timely manner.
- ▶ Customers will be notified of any event that casts doubt onto the validity of results supplied to them.



Office Staff

Our laboratory staff possesses the highest level of education in the area of Civil and Geotechnical Engineering and Analytical Services. They acquire many years of diverse knowledge and experience in the field of Construction Material Testing Industry. Our staff included highly qualified Managers Administrators and Engineers with the best qualification the industry have to offer. They have been carefully chosen on the basis of a tight selection from number of world known organizations in each field

Our services are always tackled with competence and confidentiality. A team of experts is immediately put at your service whenever and wherever you call upon us to solve any kind of problem in your Civil Engineering Projects.

All of our staff had worked throughout the GCC area and in specific in the Emirates. They have first-hand knowledge of the Area and the local standards adopted by all local authorities. We offer our assistance on the spot and no matter how complicated a problem may be, we will always have a solution for it.



Specialized Services

Laboratory Testing

Tarmac Soil and Material Testing Laboratory are pleased to offer variety of technical test to support many different aspects of Civil Engineering Woks. Our specialties include but not limited to the following materials which covers wide range of Civil Engineering work

- | | |
|------------------------------------|--|
| ✓ Soil | ✓ Foundation and Earthwork Study |
| ✓ Concrete | ✓ Geophysics |
| ✓ Cement (Physical and Chemical) | ✓ Ground Improvement |
| ✓ Aggregates | ✓ Soils Horticultural Analysis |
| ✓ Masonry Units | ✓ Plastics |
| ✓ Water and Waste Water | ✓ Concrete Admixtures |
| ✓ Asphalt Cement Concrete | ✓ Decorative finishers (Marbles, Tiles and Plasters) |
| ✓ Bitumen and Bituminous Membranes | ✓ Noise Level Survey |
| ✓ Metal (Mechanical and Chemical) | ✓ Scaffold Load testing |



✓ Bridge Structural Load Testing	✓ GPR Scanning
✓ Building Examination	✓ Glass Reinforced plastic
✓ Temperature Monitoring in Concrete	✓ Geo-textiles
✓ Rock - Site and Laboratory Testing	✓ Fire damage Investigation
✓ Concrete Diamond Drilling	✓ Wood
✓ Thermal Conductivity testing	✓ Polystyrene and Polyurethane
✓ Manhole cover	✓ Concrete Corrosion Investigation and Structural Assessment

On-site Laboratory

In addition to the testing services we offer to our clients in our permanent laboratory facility we also offer ON-SITE LABORATORY TESTING SERVICES for specific projects as required by the customer.

The on-site laboratory will be equipped to perform all relevant soil analysis or compaction related tests on engineered soil and concrete. The on-site laboratory testing service cover supply of all the necessary equipment's required for sampling and testing and necessary experienced staff to carry out the site sampling and testing and reporting as required by the client.

Test Capabilities

Our site and laboratory testing capabilities are presented in Appendix D



Equipment and Resources

Introduction

Tarmac Soil and Material Testing Laboratory are pleased to introduce some of the most advanced test equipment, apparatus and tools currently available at our facilities. All equipment's are periodically inspected and calibrated in accordance with appropriate British and American standards as required by ISO / IEC 17025. The calibrations are done by Dubai Municipality Calibration Laboratory and/or by a calibration laboratory approved by the Dubai Municipality Accreditation Body, now known as EIAC (Emirates International Accreditation Centre) and by in-house calibration dependent on the type of equipment.

We at Tarmac Soil and Material Testing Laboratory strive to produce the most accurate results to better assist our client to evaluate and determine that all materials have been used in accordance with all applicable Project Specification Codes and International codes such as ASTM and BS, to ensure that quality result is always achieved. We constantly maintain and calibrate our Equipment's and Machineries as per our maintenance and calibration schedule.

Equipment

The major equipment's available in our laboratory is presented in Appendix E. The equipment's and Machineries at our laboratories have been tabulated to list, identify and describe relevant equipment and tools used in testing Concrete, Aggregates, Soil material, Metallurgy and Chemistry departments respectively.



Quality Control

We at Tarmac Soil and Material Testing Laboratory strive to produce the most accurate results for all services performed at our facilities. We do so to better assist our client in evaluating and determining that all materials have been used in accordance with all applicable project specification design Codes, and Standards to ensure quality in result being achieved at all times. We constantly provide our team, the necessary training and legitimate tools to enhance their performance.

Health, Safety and Environment

Tarmac Soil and Material Testing laboratory constantly ensures that all necessary precautions are taken to avoid injury or risk to health of any sort. We endeavour to ensure that all direct, seconded and sub-contract labour both in-house and on-site conduct their duties in a responsible manner to ensure their own safety along with fellow workers'. To this end the company will provide guidance and training on all aspects of safety and will ensure a commitment to providing all necessary safety and protection equipment.

Each new member of staff is thoroughly briefed on the safety hazards associated with laboratory environment. The training, on a minimum, covers the safety aspects of laboratory work including the following:



- ✓ Handling of substances hazardous to health.
- ✓ Safe operation of cutting, milling, grinding and turning equipment.
- ✓ Safe operation of lifting equipment.
- ✓ Eye protection.
- ✓ Ear protection.
- ✓ Respiratory safety.

Each member of staff is trained for and made aware of the safety hazards and precautions whilst the above is documented to confirm that he has read and understood the same. The company supplies safety wear necessary to provide the required protection against laboratory hazards.

Procedures, records and maintenance contracts are in place to control safety. These include:

- ✓ Fire Alarm and extinguishers maintenance contract.
- ✓ Training Records.
- ✓ Injury Records.
- ✓ Control of flammable substances and acids

Each member of the site team working on a particular project will be briefed prior to his or her first visit to site on the safety hazards associated with site work. Should an organised safety-training program be in existence, staff will attend it. A site visit can be organised by the company responsible person to discuss the safety aspects with the site safety officer. The company responsible person can carry out periodic site visits and regular safety reviews with site staff.

The company will supply all the required safety wear necessary to provide the required protection on site.



Laboratory Safety Policy and Procedure

Purpose and Statement

The purpose of the Laboratory Safety Policy and Procedure documentation is to establish a uniform repository for pertinent documents to be reviewed by employees who work in Civil and Chemical laboratories with occupational safety, chemical and/or biological hazards. The end goal is to enhance personal (and public) Laboratory Safety, proper Chemical Handling, Waste Disposal procedures, Laboratory Etiquette, Accident and Emergency Response preparedness, and establishing Lines of Communication, so that all individuals working in, and exposed to our laboratories have a safe, productive and enjoyable lab experience.

This document includes information concerning safe laboratory practices, the use of personal protective equipment, emergency procedures, use and storage of chemicals, and the proper methods of waste disposal. It covers safety practices for labs in the Environmental Engineering, incorporating a description of the various bio-safety procedures. This information is intended to help those in the laboratory to minimize hazards to themselves and their colleagues.

Laboratory safety is strictly observed during testing. Senior staffs are responsible for the safety operation of their laboratory. The Laboratory Supervisor is responsible for the general safety supervision and management of the laboratories. Technicians and employees are responsible for the safe use of the equipment and safety features (first aid kits, Material Data Sheets, etc.) in their



respected areas. No technical staff is allowed to use any equipment without prior instruction. It is prohibited to work alone with any hazardous equipment or material. The Safety Officer/Laboratory supervisor prior to commencing laboratory activity gives all laboratory demonstrators a safety seminar. General emergency procedures are discussed with the specific safety issues in the laboratories of their responsibility. The Construction Safety Course offered by the Safety Officer/Laboratory supervisor if anyone wishes to work on a construction site.

Safety Management

The management of health and safety issues is a fundamental line responsibility. Safety is everybody's responsibility from all levels of administration and management to technicians and staff.

For a safety working environment following steps are to implemented

Housekeeping

-
- A Laboratory bench top and storage areas are orderly and uncluttered

 - B Unused items stored safely and orderly.

 - C Heavy objects are confined to lower shelves.

 - D Electrical cords are in good condition

 - E Extension cords and power strips are not daisy chained and no permanent extension cords in use.

 - F Tools and equipment are in good repair and electrically grounded.



Laboratory Work Practices

-
- A Use proper PPEs on the lab
-
- B Food & beverages not consumed in lab
-
- C Food and beverages not stored in the laboratory areas
-
- D Refrigerators for food labeled "Food Only"
-
- E No chemicals in desk area.
-
- F Lab practices minimize volatilization (traps used, open-containers minimized)
-
- G Glassware is free from cracks, chips, sharp edges, and other defects.
-
- H Broken glass containers are available, in use, and not overfilled.
-
- I Proper tubing and fittings used on circulated water lines.
-
- G If any Flammable liquids are stored and used away from ignition sources.

Personal Protective Equipment

-
- A Protective gloves are to be used and matched to hazards involved.
-
- B Eye protection to be used
-
- C Lab coats are to be used
-
- D Safety shoes to be used



Sample storage

-
- A All samples have proper identification
-
- B All containers and sample bags stored are properly labeled
-
- C Hazardous materials to be labeled and stored separately

Waste Handling: Hazardous, Non-Hazardous

-
- A Non- Hazardous wastes (eg. Soil, aggregates concrete products etc.) are to be stored in separate dust bin and disposed by authorized local disposing agents
-
- B Hazardous wastes (eg. Chemical waste, waste water etc.) are to be stored in separate dust bin and disposed by authorized local disposing agents

Walkways and Emergency Exits

-
- A Aisles & exits are free from obstruction.
-
- B Exits are clearly marked.
-
- C Exits are free from obstruction.
-
- D All fire doors are kept closed
-
- E Telephones are labeled with emergency numbers



Safety Equipments

-
- A Safety showers and eye wash stations are clearly labeled, and these areas are clear from obstruction.
-
- B All showers and eye wash stations are clean, covers are replaced, and in good working condition.
-
- C Fire extinguishers are available, unobstructed, and easily accessible.
-
- D Fire extinguishers are appropriate for the hazards in the work area.
-
- E Fire extinguishers are checked monthly.
-
- F First-aid supplies are available and clearly visible.

Other Labeling & Posting

-
- A Warning signs and labels are present whenever required
-
- B "Caution- Radioactive Material" signs are posted on doors of all authorized laboratories, and on refrigerators/freezers where materials are stored.

Safety on Site Work

-
- A Use personal protective equipments
-
- B Attend safety induction course at site provided by client/contractor if available
-
- C Strictly follow safety instruction provided on site
-
- D Operate test equipments and tools in safe and proper manner



Laboratory Organization

Our organization has a unique selection process that ensures the selected candidate possess a wide diverse range of knowledge, experience and academic credentials, as it is in our best interest to provide excellent service to our clients. We are committed to supply the most accurate results of all investigation and specialized services carried out by our skilled staff.

Our professional team organization chart is as attached in Appendix B. To further enhance your knowledge on the proficiency of our technical team, individual portfolios are attached in Appendix C.

Support Services

Liquid Waste Disposal

All non-toxic liquids and sludge will be drained to a tank, which shall then in turn be drained to a tanker by reputable disposal company and removed from site.

Solid Waste Disposal

Non-toxic solid waste shall be removed by skip.

Toxic Waste Disposal

All toxic waste are kept in drums and discarded by a Dubai Municipality approved subcontractor.



Electrical Power Supply

Electrical power to the laboratory is provided by DEWA, running 24 hours per day where appropriate.

Water Supply

Water supply is provided by DEWA. All water used/supplied will be potable.

Communication

Land line telephony is used to provide voice, data and fax communications.

Registration and License

Tarmac Soil and Material Testing Laboratories have acquired all relevant licenses from the Government of Dubai's Department of Economic Development and has been added to the list of registered establishments under Local Law 2/2010.

Our Quality Manual for the Laboratory operation complies the general requirements of both ISO/IEC 17025: 2005 and ISO 9001: 2015 in addition to the Local Law 2/2010 requirements of Dubai Municipality Accreditation Centre.

Tarmac Soil and Material Testing Laboratories are approved by the governmental accreditation body of Dubai, now known as the Emirates International Accreditation Centre (EIAC), the then called Dubai Accreditation Centre (DAC) of Dubai Municipality and authorisation has been obtained to provide services to our customers.



Tarmac Soil and Material Testing laboratory are accredited to ISO / IEC 17025:2005 by Dubai Accreditation Centre of Dubai Municipality and the scope of accreditation cover tests on various construction materials such as Soils, Aggregates, Concrete and Steel. Refer Appendix A for relevant documentation.

Tarmac Soil and Material Testing laboratory are approved by the Ministry of Public Works Department and authorisation has been obtained to provide services to our customers.

The Professional License copy, Local Law 2/2010 certificate, Accreditation Certificate from Dubai Accreditation Centre, ISO 9001: 2015 Certificate and Certificate of approval from Ministry of Public Works Department is enclosed in Appendix A.