



CONCRETE LABORATORY

It has accreditation certificate according to ISO/IEC 17025 in fourteen (14) tests.

Physical tests on:

- Aggregates (sieve analysis, specific gravity, sand equivalent, methylene blue, Los Angeles, soundness, etc.).
- Concrete (slump test, air content, apparent weight, samples preparation, air and water permeability tests).
- Refractory and insulating materials (sieve analysis, density, shrinkage, firing to high temperatures, up to 1400°C).
- Bentonite for drillings (viscosity, PH, filtration, moisture content, residue).
- Cement (setting time, density, etc.).



Mechanical tests on:

- Concrete (compressive strength).
- Refractory and insulating materials (bending and compressive strength).
- Cement (bending and compressive strength).

Nondestructive test on concrete:

- Rebound number.
- Pull out strength.
- Reinforcement detection on structural elements of concrete.
- Carbonation depth.
- Core drilling.
- Compressive strength of concrete cores.



Main Equipment

- Concretes and mortars compression - bending machines from 50KN to 3,000KN.
- Drying ovens and furnaces up to 1,400°C.
- Mixers, slump apparatus, air entrainment meter, cubic, cylindrical and prismatic moulds of various dimensions, constant moisture and temperature chamber.
- Full range of sieves according to ASTM and EN standards.
- Los Angeles abrasion machine.
- Schmidt hammers.
- Core drilling machines.
- Reinforcement detection apparatus.



SOIL MECHANICS LABORATORY

It has accreditation certificate according to ISO/IEC 17025 in eight (8) tests.

Soils classification tests:

- Moisture content.
- Particle size sieve analysis.
- Particle size analysis using hydrometer.
- Atterberg limits.
- Specific gravity.

Soils mechanical tests:

- Unconfined.
- Triaxial.
- Direct shear.
- Residual shear tests with the ring shear apparatus.
- Consolidation.
- Compaction (standard and modified Proctor tests).



Main Equipment

- Triaxial cells and load rings 5KN to 100KN.
- Direct shear apparatus.
- Ring shear apparatus.
- Mechanical and hydraulic compression oedometers.
- Automatic electric Proctor compactor.
- Full range of sieves according to ASTM standards.
- Automatic system for recording and processing mechanical tests measurements (triaxial, shear, consolidation).