PANDA2

corehard
hardcore integrity

Variable Energy Input Dynamic Cone Penetrometer

Introducing a cost effective means to record accurate compaction and resistance values in unbound materials & soils.

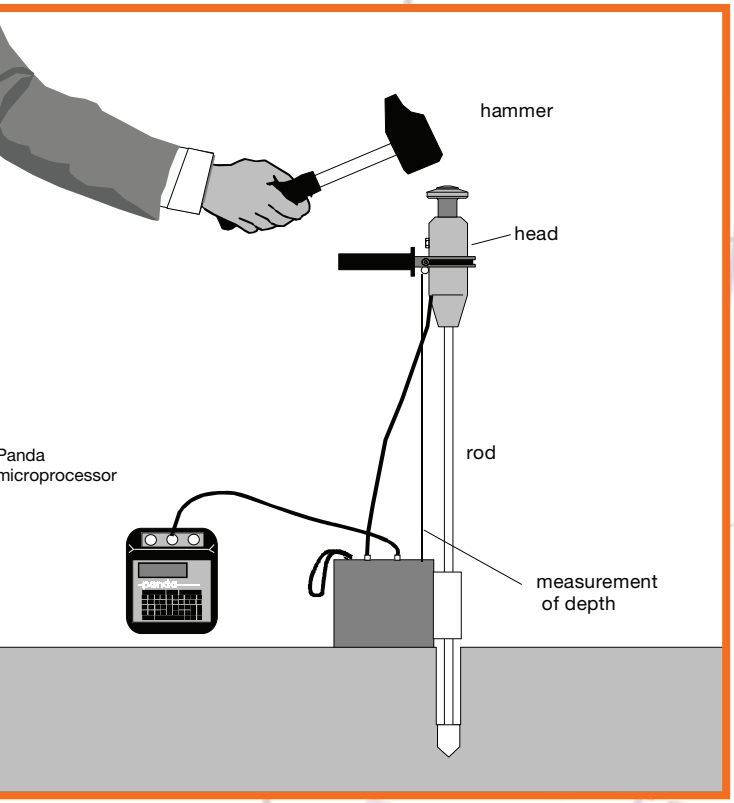
Uses

- Compaction control
- Street-Works Conformance
- Soils Research
- Recycled & Modified Materials
- CBR % values throughout depth
- MPa values throughout depth
- Highway construction
- Quality Assurance
- Layer Identification
- Material Identification
- Railways
- Tunnel works
- Earth Banks & Dams

Corehard are the first company to achieve UKAS accreditation for the PANDA2 and can provide accurate results up to 6m depth where conditions allow. Designed by Dr Roland Gourves, the principal lecturer in soil mechanics at CUST, Plaise Pascal University, Clermont-Ferrand, France. The Panda is subject to continual monitoring and development to enhance its output range. The popularity of the device has exceeded expectation due to being both adaptable and portable in relation to specific client requirements, and is now widely used across the globe.

For further information call **+44(0)1438 255 102**

How does the **PANDA2** work?



The PANDA is a light-weight (total weight of equipment 20kg) dynamic cone penetrometer, which uses variable energy and can be operated by one man to test soils in almost any location to a depth of 6 meters. The device is used by penetrating material and measuring ground or material resistance which can be conveyed in results applicable to client requirements such as MPa, KN, psi, CBR, etc.

The device consists of three main components known commonly as :

(i) The Anvil, This part of the device is where strain gauges are built in to record strike effort from hammer blow.

(ii) Dialogue Terminal (DT), This part of the device is where the operative can input and extract data in relation to relevant site or sounding.

(iii) Central Acquisition Unit (CAU), The critical information for each sounding is returned from this unit in relation to overall depth, resistance, and strike distance.

The principle

The test is carried out by driving a cone (2, 4 or 10cm2) on the end of a set of rods using a fixed weight hammer. For each blow of the hammer a microprocessor records the speed of impact of the hammer and hence calculates the amount of energy used. The microprocessor uses the depth of penetration and energy for each blow of the hammer to calculate the dynamic cone resistance (qd) using the Dutch Formula and records and displays the values for qd along with the corresponding depth. Studies have proved the reliability of the results obtained compared with standard in situ tests.

The software

A windows compatible program enables measurements recorded by the microprocessor to be analyzed using this software which allows the operative to present in various formats. The software includes an extensive database of soils and materials from which to classify identified materials.

The program will plot reference lines with tolerance for pass and failure, which when compared to the test data, will allow an assessment of the quality of works undertaken. The software can output penetrographs with all client and site information along with a strike index and resistance value for each penetration.

The PANDA2 is ideal for Compaction and Investigation

Compaction

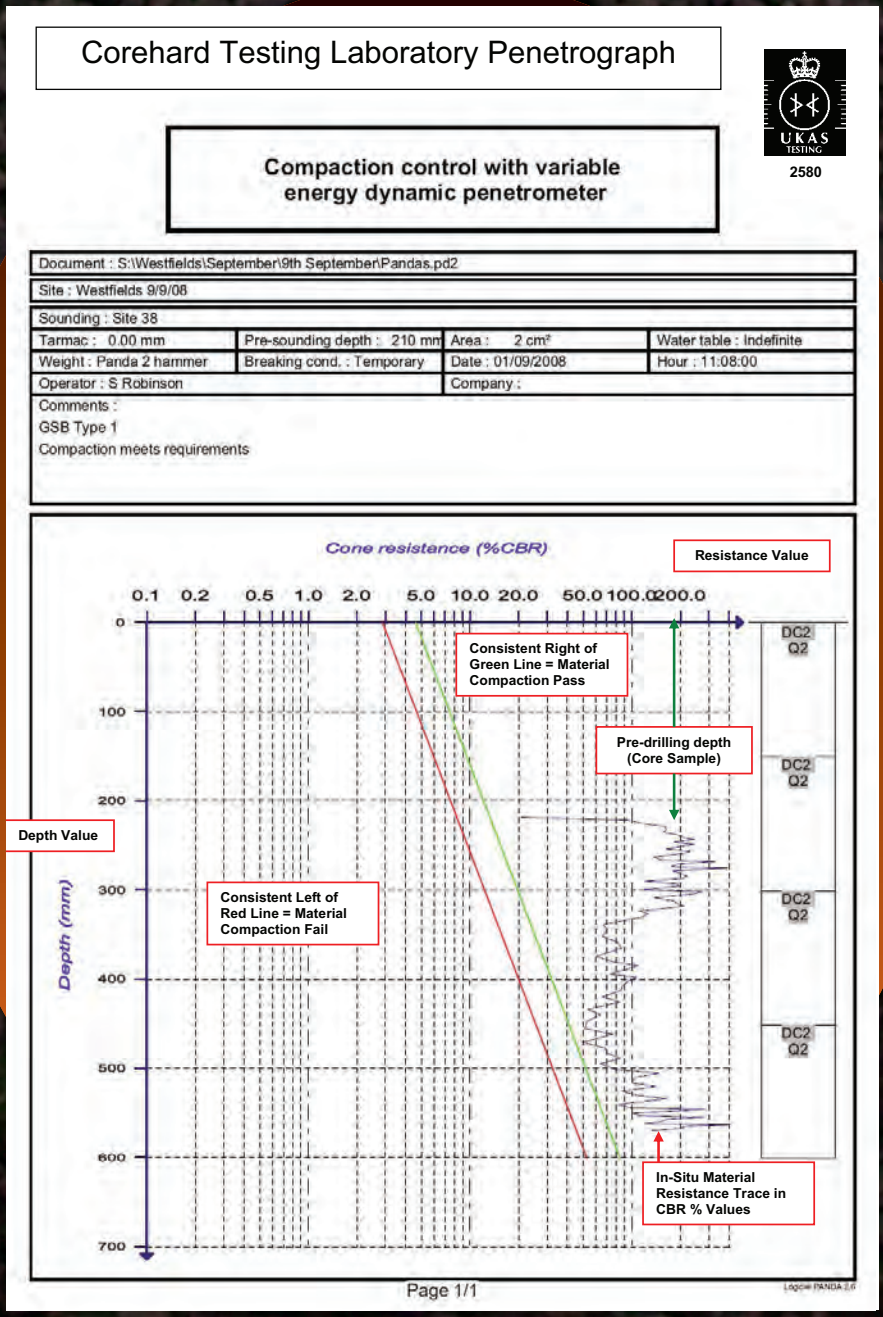
- Trenches & excavations using compaction equipment
- Natural and recycled materials verification of compaction
- CBR % values throughout depth of penetration
- Direct GPS input for location purposes
- Embankments and cuttings.
- Roads and Highways.
- Earth dams and dykes.
- Monitoring layer thickness, and compaction homogeneity.
- Layer identification
- Material identification
- 5 minutes per test with results viewable on site
- Earth Banks & Dams

Investigation

- Preliminary investigation for roads (pipe lines, urban redevelopment and rural development)
- Low rise buildings with a depth of influence up to 4 meters (two story houses, pylons etc).
- CBR % values throughout depth of penetration
- Temporary structures (cranes, platforms etc)
- Pathology (desiccation, cracks and voids)

The device has the ability to reach 4-6 metres depth in soils with a cone resistance of 20-30 Mpa. The size and weight of the penetrometer allows it to be highly portable and used anywhere by one person or as part of a core sampling program.

PANDA2 Dynamic cone penetrometer testing



...hard edged analysis from the top down

For more information of purchase or use of the Panda2

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ISO 9001 BUREAU VERITAS Certification

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