

## **POCKET CONCRETE PENETROMETER**

### **BE 82**

A Pocket Concrete Penetrometer is a compact, lightweight, spring-loaded testing tool designed for quick field or laboratory evaluation of the initial set (hardening) of concrete mortar or grout. It measures the resistance to penetration, providing an estimate of compressive strength in psi (pounds per square inch). It's particularly useful for on-site assessments during construction to determine when mortar has reached a semi-hardened state where it can no longer be easily worked.

### **FOLLOWING STANDARD**

ASTM C-403, ASTM C780, AASHTO T 197

### **THE DEVICE OPERATES ON A SPRING-REACTION PRINCIPLE**

1. **Preparation:** A sample of fresh mortar is sieved from the concrete mix and placed in a suitable container.
2. **Insertion:** The plunger (with a 1/20 square inch tip area) is steadily pushed into the mortar sample to a depth of 1 inch, as marked on the shaft.
3. **Reading:** The scale on the device directly indicates the penetration resistance in psi, typically ranging from 0 to 700 psi. A friction ring or dial captures the maximum reading.
4. **Interpretation:** Higher resistance values indicate greater hardness. This helps identify the "initial set" point, beyond which the mix is no longer workable.



**BALAJI ENTERPRISES**