

Product Name :
Nuclear density Meter

Product Code :
TEST5176RFQLAB-0039



Description :

Nuclear density Meter

Technical Specification :

Nuclear density Meter

This product is used to measure moisture density of the construction material from the surface to 300mm depth. This device can measure and display wet density and dry density per cent moisture, moisture content and other necessary engineering parameters related to density and moisture content materials.

Mechanical Specification:

Operating Temperature 10o to 70o C

Materials:

Shielding Tungsten Powder alloy

Source rod 440C stainless steel, induction, heat treated to 55 Rockwell C

Gauge base 440C stainless steel, induction, heat treated to 55 Rockwell C

Post Frame Computer machined 6061-T6 aluminum

Index Rod 7075 aluminum Hard coated and PTFE Impregnated

Measurement: Density at (2000 kg/m³)

Direct Transmission, (1500mm) 1 minute (Std)

Precision (kg/m³) ± 0.25

Chemical Error (kg/m³) ± 1.0

Surface error (kg/m³) -0.5

Measurement Depth : 50 to 300mm

Backscatter, (88mm) 1 minute (Std)

Precision ± 0.5

Chemical Error (kg/m³) ± 2.5

Surface error (kg/m³) -3.0

Measurement Depth : 88mm

Moisture at 160kg/m³ 1 minute (Std)

Precision ± 0.25

Surface error (kg/m³) -0.25

Electrical

Display 4 lines x 20 alpha numeric with backlit liquid crystal display

Timer stability 0.01%

Power supply stability 0.10%

Power source Alkaline AA size batteries

Low Battery Condition Low Battery Alarm and Auto Shutoff for low and dead battery conditions

Radiological

Gamma Source

Material type and amount Cs-137, 370MBq (10mCi)

Neutron Source

Material type and amount Am-241:Be, 1.48GBq (40mCi)

Neutron yield 70 Knps $\pm 10\%$

Radioactive Materials Data

Material Chemical/Physical Form Maximum Amount

Cesium-137 Sealed source Not to exceed 11 millicuries per source

Americium -241:Be Sealed source Not to exceed 44 millicuries per source.



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