Fast and Accurate Results
In as little as 1 minute, the 4640-B measures and displays density results that are reliable and repeatable.

Eliminates the Need for Nomographs
Variations in the density or composition of the base material do not affect the test results. No field calculations are needed.

Operator Selected Depth of Measurement
The thickness of the top layer is entered by the operator in the software. This allows the 4640-B to correctly calculate the top layer density without influence from the underlying material.

Meets ASTM and AASHTO Standards
The 4640-B meets or exceeds all applicable ASTM and AASHTO Standards

Widely Accepted in the Industry
Many departments of transportation depend on the Troxler thin layer gauges for reliable real time compaction control of new pavement as well as asphalt overlays.
Special Functions

- Automatic standard count comparison and storage.
- Data storage of 750 records for later viewing, printing or downloading.
- Determination of count time for selected precision.
- Field offsets of density and special calibration function available.
- Calculator mode.
- Diagnostics and self test modes provided.
- The Free Troxler App makes data transfer to a portable device simple.

### Measurement Specifications

<table>
<thead>
<tr>
<th>Time</th>
<th>Thickness</th>
<th>kg/m³</th>
<th>pcf</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 min.</td>
<td>2.5 cm (1&quot;)</td>
<td>±16</td>
<td>±1.0</td>
</tr>
<tr>
<td></td>
<td>5.0 cm (2&quot;)</td>
<td>±10</td>
<td>±0.6</td>
</tr>
<tr>
<td></td>
<td>6.3 cm (2.5&quot;)</td>
<td>±8</td>
<td>±0.5</td>
</tr>
<tr>
<td>4 min.</td>
<td>2.5 cm (1&quot;)</td>
<td>±8</td>
<td>±0.5</td>
</tr>
<tr>
<td></td>
<td>5.0 cm (2&quot;)</td>
<td>±5</td>
<td>±0.3</td>
</tr>
<tr>
<td></td>
<td>6.3 cm (2.5&quot;)</td>
<td>±4</td>
<td>±0.25</td>
</tr>
</tbody>
</table>

Depth of Measurement: 1 to 4 inches (25 to 100 mm)

### Mechanical Specifications

- Gauge size (excluding handles): 18.6 x 9.1 x 6.2 inches / 472 x 231 x 158 mm
- Gauge Height (including handles): 9.5 inches / 240 mm
- Weight: 29.7 pounds / 13.5 kg
- Shipping Weight with Transport Case: 90 pounds / 40.8 kg

### Electrical Specifications

- Stored Energy: 30 watt hours
- Battery Recharge Time: 14 to 16 hours
- Battery Recharge: 110/220 V, 50 to 60 Hz or 12 to 14 V DC
- Power Consumption: 0.16 watts/hour

Battery packs are fully protected against overcharge and overdischarge. Capable of operation with size D batteries for emergency use.

### Environmental Specifications

<table>
<thead>
<tr>
<th>Operating Temperature</th>
<th>Ambient</th>
<th>14 to 158°F -10 to 70°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface</td>
<td>350°F</td>
<td>175°C</td>
</tr>
<tr>
<td>Storage Temperature</td>
<td>-70 to 185°F -55 to 85°C</td>
<td></td>
</tr>
</tbody>
</table>

### Radiological Specifications

- Gamma Source: 0.30 (8mCi) ± 10% Cs - 137
- Source type: Sealed source - Special Form
- Source Encapsulation: Stainless Steel, Double encapsulated
- Shielding: Tungsten and lead
- Shipping Case: Type A, Yellow II, TI = 0.2

Thin Layer Asphalt Density without influence from the underlying material