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Product Name :

Mixer Theoretical Density Meter

Product Code :

SLE/CE/86



Science Lab
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Description :

Mixer Theoretical Density Meter (Product Code: SLE/CE/86) is a vacuum apparatus used to determine the theoretical density of asphalt mix in highway and civil engineering laboratories. It tests 2 samples at a time in acrylic vacuum containers over a 0–100 kPa (0–750 mm Hg) vacuum range, while a vibratory table with manual and automatic modes helps release entrapped air. It is manufactured by **Jain Scientific Equipments Pvt Ltd (ScienceLab)**, Ambala, a laboratory instruments supplier in India.

Specifications

Parameter	Detail
Test	Theoretical density of asphalt mix by the vacuum method
Applications	Asphalt mix design; road condition investigation; calculation ofporosity and compactness in road construction quality management
Vacuum containers	2, made of acrylic pipe
Samples per test	2
Vacuum gauge	Fitted on the main body; Wika make, Germany (as listed)
Vacuum range	0–100 kPa (0–750 mm Hg)
Vibratory table	Under the containers; manual and automatic modes to release entrapped air from the samples
Vibration loading	10 kg
Controls	Complete control panel
Power supply	230 V AC, single phase, 50 Hz
Product code	SLE/CE/86
Manufacturer	Jain Scientific Equipments Pvt Ltd (ScienceLab), Ambala, India

What Is the Theoretical Density Meter Used For?

Theoretical density is the density an asphalt mix would have with no air voids at all. Comparing it with the bulk density of compacted specimens or cores gives the air void content, or porosity, and shows how well a pavement layer has been compacted. It is therefore needed both when a mix is designed and when finished road layers are checked.

Loose mix is placed in the acrylic containers, the vessels are sealed and vacuum is applied while the vibratory table agitates them, so that air trapped between the coated particles escapes; the transparent containers let the operator watch it happen. Check that the gauge reads zero before each run, keep the load on the table within 10 kg, and clean the acrylic vessels with a soft cloth rather than abrasives. Testing two samples together speeds up duplicate determinations.

What to Specify When Ordering