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Product Name :

Slake Durability Test Apparatus

Product Code :

SLE/CE/105



Science Lab
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Description :

Slake Durability Test Apparatus (Product Code: SLE/CE/105) is a motorised drum-tumbling apparatus used to measure how well shale and similar soft rocks resist breaking down during wetting and drying cycles, in civil engineering, geotechnical and geology laboratories. Rock mechanics labs and engineering colleges use it to assess material for embankments and other construction work; its drive turns two or four 2.00 mm mesh drums at 20 rpm through water. It is made by **Jain Scientific Equipments Pvt Ltd (ScienceLab)**, an OEM manufacturer, at its own factory in Ambala, India.

Specifications

Parameter	Detail
Drive unit	Motorised drive mounted on a baseplate
Drums driven	Two or four drums
Drum speed	20 rpm
Test drums	2.00 mm mesh, 140 mm diameter × 100 mm long
Water level	Tank assemblies filled with water to 20 mm below the drum axis
Test cycle	Samples tumbled in the mesh drums through water and oven-dried, for two cycles
Result	Slake durability index, calculated from the sample's dry mass before and after the cycles
Product code	SLE/CE/105
Manufacturer	Jain Scientific Equipments Pvt Ltd (ScienceLab) — OEM
Country of origin	India (made in Ambala, Haryana)

What Is the Slake Durability Apparatus Used For?

Some rocks look sound when freshly excavated but crumble once they are exposed to rain and sun, which can undermine embankments, cuttings and fills. The slake durability test simulates this weathering. Oven-dried rock lumps are weighed and placed in a mesh drum, the drum turns at 20 rpm in its water tank with the water 20 mm below the axis, and fragments smaller than the 2.00 mm mesh wash out. The retained material is oven-dried and weighed, and the cycle is repeated a second time.

The change in dry mass across the two cycles gives the slake durability index, a simple figure for comparing how different shales and mudstones will behave in service. Running four drums lets a class or lab test several samples together. Brush the mesh clean after each test so the openings stay clear, and use a suitable laboratory oven for the drying stages.

What to Specify When Ordering

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