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Product Name :

Rapid Chloride Permeability Tester

Product Code :

SLE/CE/40



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Description :

Rapid Chloride Permeability Tester (Product Code: SLE/CE/40) is a four-port RCPT testsystem used to assess the resistance of concrete to chloride-ion penetration, an indicator of its permeability, in concrete durability, research and civil engineering laboratories. It comes as a complete set with a 230–250 V AC test unit, 300 mm vacuum desiccator, vacuum pump with gauge, moisture trap, temperature probe, four pairs of plexiglass chambers and a tools kit. It is manufactured by **Jain Scientific Equipments Pvt Ltd (ScienceLab)**, Ambala, India.

Specifications

Parameter	Detail
Test	Rapid chloride-ion permeability test (RCPT) on concrete
Test unit	RCPT test apparatus with 4 ports
Power supply	230–250 V AC
Test cells	Plexiglass chambers, 4 pairs
Vacuum desiccator	300 mm
Vacuum pump	Vacuum pump with gauge
Other items	Moisture trap, temperature probe, tools kit
Product code	SLE/CE/40
Manufacturer	Jain Scientific Equipments Pvt Ltd (ScienceLab), Ambala, India

What Is the RCPT Apparatus Used For?

Chlorides from seawater, de-icing salts or contaminated materials can travel through concrete and trigger corrosion of the steel reinforcement. How fast they move depends on the pore structure, which in turn depends on the mix design, degree of hydration, curing conditions, use of supplementary cementitious materials and construction practices. Wherever there is a potential risk of chloride-induced corrosion, concrete should be evaluated for chloride permeability, and the RCPT gives a rapid, comparative measure.

In outline, concrete specimens are vacuum-saturated using the desiccator, pump and moisture trap, then mounted between a pair of plexiglass chambers; the test unit applies an electrical potential and records the charge passed, while the temperature probe monitors the cell. With four ports, up to four specimens can be run together. Results are commonly rated as shown below; this makes the set a valuable part of any laboratory instruments line-up for durability studies.

Chloride permeability	Charge passed (coulombs)	Typical concrete type
High	Above 4000	High water-cement ratio (above 0.6) conventional PC concrete
Mod		Moderate water-cement ratio (0.40 to
Low		