

CHLORIDE PENETRATION METER DTL-A

STANDARD: ASTM C1202, AASHTO T277

This test method allows evaluation of chloride permeability characteristics of concrete.

The test is performed to monitor the amount of electrical current passing through concrete cores or cylinders. A potential difference is maintained across the ends of the specimen, one of which is the negative end and is immersed in a sodium chloride solution, the other (positive end) in a sodium hydroxide solution. The total charge passed, in Coulombs, that is related to the resistance of the specimen to chloride ion penetration is measured.

Measuring technique

closed loop maintained 60 V DC potential difference, passed current measured and integrated relative to time



FEATURES

- Embedded microcomputer control, with power failure/power-off data preservation. Reliable and stable performance, high measurement accuracy.
- 7-inch color screen, with real-time display, storage and analysis functions.
- Can be used directly without a computer or host computer, convenient for outdoor field testing.
- Short circuit protection to avoid instrument damage caused by short circuit.
- The fixture is made of imported ABS and thickened copper sheet, high measurement accuracy, convenient to use.
- 16-bit AD, using military-grade switching power supply.
- Two groups (6 blocks), three groups (9 blocks), or four groups (12 blocks) of concrete test blocks can be tested simultaneously each time.
- Equipped with the latest intelligent integrated vacuum water saturation machine.

TECHNICAL PARAMETERS

Test ability	C30~C50 Portland cement concrete
Test channel	6 channels, 9 channels, 12 channels, 16 channels optional
Working environment	0℃~50℃ humidity≤75%
Measurement error	<1%
Accuracy	± 0.1 V, ± 1 mA
Working voltage	~220VAC 60VDC
Working current	0-360mA
Host	385×345×145mm, 5kg
Specimen cells	6 sets; 440×350×210mm; 9kg
Total weight	46kg(vacuum saturated machine included)

RCM CONCRETE CHLORIDE MIGRATION TESTER

STANDARD: NT BUILD 492, EU PROJECT CHLORTEST G6RD CT 2002 00855,
CEN TC 51(CEN TC 104)/WG12/TG5, CCES-01-2004



It is suitable for the aggregate less than 25mm (General not more than 20mm) in lab and drilled core (specimen) in situ. Based on the result, it designs the concrete durability design in chloride environment and concrete quality inspection and assessment. According to DuraCrete unsteady electromigration test theory, this method is to quantitatively evaluate the concrete resistance capacity to chloride ion diffusion, and to test the basic parameters with the design and durability of concrete structures and life assessment and prediction in the chloride ion erosion environment.

TECHNICAL PARAMETERS

Test channels	6/9/12/16 channels optional
Output current range	0-400mA
Output current accuracy	±1mA
Temperature accuracy	±1 °C
Output voltage	0-60V(±0.1V)DC (adjustable)
Input power voltage	220V±10/50Hz AC
Kernel	32 embedded ARM core
LCD	6.4 inch EPSON industrial touch screen
Total weight	46kg(vacuum saturated machine included)

FEATURES

- 0-60V adjustable voltage, short circuit auto-protect, single channel running time, the whole electric migration process is automatically controlled.
- embedded computer control, power outages and power-down data storage, advanced technology, well-made, reliable performance, high accuracy.
- LCD display, with real-time display/print and analysis function, the computer screen can display the data at real-time, can be separated from PC to use directly;
- standard RS232 serial communications with fully automatic PC connection software can monitor the processing data, the PC can calculate the result and output the flux test report, and then print for analysis and archiving
- Built-in-analysis and calculation function, after testing, input parameters into the computer and then can automatically calculate test results
- Imported material fixture, high accuracy, easy and smart to use
- Can simultaneously test two(6), three(9), four(12) or five groups(16) concrete block one time
- With the latest smart-in-one vacuum saturated machine
(The test temperature curve is displayed on the host interface)

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TECHNICAL PARAMETERS

Volume	10L
Vacuum accuracy	$\pm 0.001\text{Mpa}$
Power	300W
Power Supply	AC 220V
Console Voltage	DC 5V
Transmitter Voltage	DC 24V
Dimension	750×680×400 mm
Weight	32 kg

VACUUM SATURATED MACHINE

The intelligent concrete vacuum saturation machine is used for the saturation treatment of the concrete test block, and for the early saturation of the concrete chloride ion electric flux and diffusion coefficient experiment. It is used for passenger rail lines, marine, hydraulic, bridges, tunnels, industrial and civil buildings and other concrete construction durability design, production quality control and project acceptance, and it is one of the necessary equipment of the durability of concrete laboratory in Research institutions. The equipment adopts a number of international current advanced technologies.

The main chip adopts a microprocessor, the whole process is controlled automatically, and it can also be manually set and operated, and the operation is simple. It is designed with total stainless-steel cabinet for strong corrosion resistance. 12 test blocks can be saturated with water in a single test.