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Prall Tester

A high quality, repeatable and reproducible machine that complies with EN 12697-16 A with dual chambers for reduced variability

Studded tyres greatly reduce skidding and accidents on snow or ice covered roads. However, all too often the studs come into contact with the road surface. The use of studded tyres is very costly in terms of annual load wear. Additionally, as the studded tyres wear the pavement they eventually cut ruts in the road that can fill with water to create a hydroplaning hazard in wet weather. A further issue is the polluting dust that is created. The Prall Test (Method A) has proved to be the most successful way to investigate abrasion due to studded tyres. At the same time reproducibility had been an issue. At Cooper we have assessed the aspects of the test crucial to performance and improved them by fitting a second test chamber, thus significantly reducing variability.
The CRT-PRALL is designed to carry out the Prall Test according to EN12697-16 Method A in which a cylindrical specimen of asphalt having a diameter of 100mm and a length of 30mm is tested at a temperature of 5°C. The specimen is worn by abrasive action over a standard time period of 15 minutes by 40 steel spheres. The loss of volume in millilitres is recorded and reported as the abrasion value.

Standard

- EN 12697-16 Method A

Key Features

- Robust and high quality stainless steel test chambers x 2
- Inlet and outlet ports are connected to flexible hoses via quick release adaptors
- Comes with a replaceable insert with glued rubber (neoprene) plate to fix to the upper surface of the lid
- Efficient locking guard system to satisfy CE legislation
- Fitted drain
- Supplied with spheres made of stainless steel according to ISO 3290
- Fitted with ‘flow controller’ on the chamber lid inlet port to regulate the flow of water to each chamber
- Flow of water to each chamber is variable over the range of 0 to 4 litres per minute which provides greater control and flexibility
- Precision engineered equipment with controlled flow of water to each chamber, to an accuracy of 0.2 litres per minute
- User friendly, state of the art PLC based control system, mounted within its own enclosure to allow positioning away from the equipment
- Made in the United Kingdom, Fully CE marked

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Key Uses

- Determination of wearing of asphalt pavements
- Investigation of abrasion due to studded tyres

Software

- User friendly and reliable control system controlled via PLC interface
- The interface allows the user to set the temperature of the water reservoir, speed of the motor and the flow of the coolant water into each test chamber prior to starting the test
- The interface displays the temperature of the water reservoir, speed of the motor and the flow of the coolant water into each test chamber
- Data is recorded throughout the test and can be exported to PC via a data stick for further analysis
- The safety relay ensures that the door on any test chamber does not open until the motor has come to a standstill and water supply has been isolated

Accessories

Accessories are not included in the price of main device (unless stated otherwise) and may be purchased separately if required.

CRT-PRALL-SHR	Sample Holding Rack (up to 4 Specimens)
CRT-PRALL-SC	Samples Candles (2 off)
CRT-PRALL-NG (Replacement Part)	Neoprene Gasket (2 off)
CRT-PRALL-SS (Replacement Part)	Steel Spheres - 80 off for Prall Tester
CRT-PRALL-S (Replacement Part)	Seals (2 off)

Specifications

Technical specifications are subject to change without notice.

Length of connection rod mm	200 ± 5
Motor power requirement (3 Phase)	6 kW 50 Hz
Motor speed (variable) rpm	150 to 1500
Steel Spheres diameter mm	11.50 to 12.01
Steel Spheres hardness value HRC	63 to 66
Control System	PLC controlled Mains pressure water required

Calibration & Maintenance

Calibration, Annual Service and Maintenance Contracts are available for this device.
Please enquire for further details.
Note: This device should be checked and calibrated annually.

Datasheet Version: 19.01/01

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