

ADVANCED AND TRUE MOISTURE SENSITIVITY TESTING

Proper testing and screening of asphalt mixes for moisture susceptibility is a crucial requirement for designing today's high-performing, longer-lasting pavements. InstronTek's MiST 2 (Moisture Induced Stress Tester) is designed to simulate asphalt pavement adhesion and cohesion mechanisms, which are due to water and repeated traffic loading.

The MiST 2 consists of a pressurized chamber, which conditions samples by pushing and pulling temperature controlled water through a compacted asphalt sample, thus creating pore pressure and simulating the action of an automobile tire on a wet surface. The test can be performed at different pressures and temperatures, creating pore pressure and scouring within the asphalt layer.

Current moisture sensitivity tests suffer from poor repeatability, test times can take up to seven days and only provide partial information on moisture sensitivity of the mixture. Asphalt conditioning in the MiST 2 is automatic and can be completed in 24 hours based on ASTM D7870. Plug the unit into a standard wall outlet; place the sample in the chamber, select your settings and the unit does the rest; no need to vacuum saturate specimen beforehand. The data from the MiST 2 can be stored and transferred to a PC for evaluation and storage.

**Compact
Ultra-Quiet
Design!**



AASHTO TP 140, ASTM D7870
U.S. Patents 8,020,451 – 6,799,471
8,312,776

MiST²

MOISTURE INDUCED STRESS TESTER

NEW MiST 2 FEATURES

- ▶ **Ultra-Quiet Design**- Noise level is drastically reduced.
- ▶ **NEW! Benchtop Design**- Smaller footprint for easy placement in any asphalt laboratory benchtop.
- ▶ **Lighter Weight**- 3x lighter than the original!
- ▶ **Fully Automatic System**- Automatically drains after every test, maintaining a moisture-free environment. Simply place the samples in the chamber, and the machine does the rest.
- ▶ **Smaller Unit/Same Capacity**- Conditions: 2- 150mm, 3- 100mm, or 3- Ideal CT asphalt cores.

ADVANTAGES

- ▶ **Meets AASHTO TP 140 & ASTM D7870**
- ▶ A representative way of conditioning asphalt samples that provides information on cohesive and adhesive properties of the mixture
- ▶ Designed to simulate asphalt pavement stripping mechanisms
- ▶ Conditions samples in 24 hours, not days
- ▶ Tests can be performed at different pressures and temperatures
- ▶ Testing is automatic and monitored by sensors
- ▶ Data from the MiST 2 can be stored and transferred to a PC for analysis

SPECIFICATIONS

Temperature Accuracy	±1°C/±1.8°F
Max Temperature	65°C/150°F
Sample Height	25 mm up to 200 mm/1" to 8" (multiple samples up to 200 mm)
Sample Diameter	100 mm to 150 mm/4" to 6"
Pressure Control	7 kPa/±1 psi
Maximum Apparent Pressure	345kPa/50 psi
Power	115 VAC 20 A (Optional 230 VAC 10 A)
Weight	74 kg/163 lbs
Height	0.76 m/30"
Foot Print	0.76 m x 0.61 m/30" x 24" square
Internal Pneumatic Pump System	Pump stand-by mode and automatic air tank refill