

Anton Paar

MCR

SmartPave

SmartPave is a Dynamic Shear Rheometer (DSR) based on the latest technology used by MCR rheometers with the well-established EC motor system. It incorporates innovative features that take asphalt binder testing to previously unattained levels of accuracy, comfort and ease of use.

Easy-to-use software

The user-friendly rheometer software has been designed specifically for the needs of the asphalt industry. The software consists of pre-defined step-by-step instructions with all test types as defined by AASHTO T315 (“PG-Grading”), AASHTO TP70/T350 (“MSCR-Test”), AASHTO TP101 (“LAS-Test”), ASTM D7175 (“PG-Grading”), ASTM D7405 (“MSCR-Test”), AASHTO T316 and ASTM D4402. European Standards such as EN 14770 and DIN EN 13302 are also covered.



Fully automatic temperature calibration

We have developed an automatic temperature calibration which makes the calibration as simple as can be. Load the calibration probe into the instrument and the temperature calibration will be done automatically by pressing a single button.



Fast Peltier heating and cooling

The unique temperature control unit is the first Peltier heating system with heating elements above and below the sample. Temperature gradients are completely eliminated and the heating and cooling rates are unbelievably fast. Test times are reduced almost by half, while reproducibility is improved. For example, it is very convenient to raise the temperature to 100 °C for cleaning. After cleaning is completed, it only takes a few minutes to cool the system back to filling temperature.

For measurement of ground tire rubber (GTR) modified asphalt binder as well as for viscosity measurements according to AASHTO T316, ASTM D4402 and DIN EN 13302 a unique Peltier temperature device for concentric cylinder geometries is available.

No more water!

Due to the unrivaled asphalt chamber, there is no water flow around the sample as it is still standard in old fashioned devices. You can work in a completely dry environment. Annoying noises of water circulators and blocked water filters are things of the past.

Guided operation

A fully automatic temperature setting routine guides the user through the grading process, making asphalt binder grading as easy as can be. Thanks to the versatility and modularity of the SmartPave rheometer, you can perform all tests used in modern rheology today. The broad torque range and true stress and strain capabilities allow you to adjust the measurements to match your special needs. That means you won’t have to buy a new rheometer if the asphalt binder test specifications change in the future; your SmartPave will be able to handle the new demands and to protect your investments.



Specifications SmartPave

Maximum torque:	200 mNm
Minimum torque, oscillation:	7.5 nNm
Minimum torque, rotation:	5 nNm
Maximum angular velocity:	314 rad/s
Minimum angular velocity:	10^{-8} rad/s
Maximum angular frequency:	628 rad/s
Minimum angular frequency:	10^{-7} rad/s
Angular deflection, resolution:	10 nrad
Temperature range:	-30 °C to 120 °C

Your distributor:

www.anton-paar.com

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Specifications subject to change without notice.

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