PREMIER™ MDR

Moving Die Rheometer

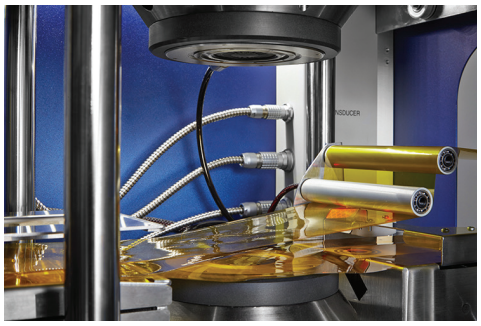
The MDR that's driving the next generation of testing – delivering data with the highest consistency and long term stability of all moving die rheometers.

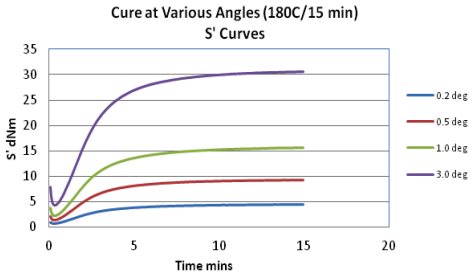
The PREMIER™ MDR is built for optimum performance in both laboratory and production environments, the PREMIER™ MDR's stream-lined design includes an LED back-lit logo for test status indication, a wrap-around front cover and shield for ease of use and access, a touch-screen user interface, and a built-in storage drawer.

ALPHATECHNOLOGIES

PREMIER™ MDR

Moving Die Rheometer





Testing Features

- Versatile LCD touch screen and user interface
- Smaller instrument footprint for effective use of bench space
- Biconical cruciform-less dies with optimized groove profiles to reduce slippage and improve performance with stiffer stocks
- Uniquely designed heater provides reduced temperature gradients and improved temperature recovery
- Improved forced air die cooling with independent control to the upper and lower dies provides rapid temperature changes for better non-isothermal control
- Pressure transducer to provide both torque and pressure measurements included as standard
- PREMIER™ MDR operates using Enterprise software, a flexible LIMS system based on an open SQL database design

Performance

- Unsurpassed test repeatability and reproducibility
- DYNAMIC SYMMETRY™ - A system that ensures parallel die closing, reducing variation
- SMART ALIGNMENT™ - A system that ensures excellent die cavity sealing for better repeatability
- SMART SEAL™ - An optional upper die assembly to eliminate the conventional elastomeric seal while maintaining a closed, pressurized cavity for improved long-term data stability and reduced need for torque calibrations (Lower Die Long Life Seal – Standard)
- RAPID CHANGE™ - An optional adjustable eccentric option that allows simple and fast oscillation angle changes without the need for re-calibration (0.5 degrees arc is standard)

Options

- Oscillation amplitudes of 0.2, 1.0, 3.0, and 7.17 degrees arc mechanically set
- 5-sample queuing automation system
- Multi-tray automation system
- Interface to Eclipse software system for handling historical data
- Sample cutter Model 2000R for rubber
- Film to protect dies and seals from contamination and wear

Specifications

FREQUENCY:	100 cpm (1.67 Hz)
TEMPERATURE RANGE:	RT to 230°C
STRAIN:	0.5 Standard (7%); 0.2, 1.0, 3.0 and 7.17 degrees (2.8%, 14%, 42% or 100%) available
COMPRESHENSIVE DATA POINTS:	ML, MH,MH-ML, Ts1, Ts2, T10, T50, T90, S″at ML, S″at MH, TD at ML, TD at MH, Max Cure Rate, Time at Max Cure Rate, Pressure point PH-PL and pressure time points
LCD Touch Screen:	155mm x 85mm, Resolution 800 x 480
TESTING STANDARDS:	Meets ASTM D5289 and ISO6502 and DIN 53529
LANGUAGES:	English, Dutch, German, Swedish, French, Spanish, Italian, Finnish, Danish, Portuguese, Polish, Romanian, Turkish, Czech, Hungarian, Russian,Chinese
ELECTRICAL:	100/110/120/130 VAC ±10%, 50/60 ±3 Hz,10-amp single phase; 200/220/240/260 VAC ±10%, 50/60 ±3 Hz, 5-amp single phase
AIR PRESSURE:	60 psi (413Kpa, 5402 kg/cm2) minimum
DIMENSIONS:	37″W x 27″D x 48″H (937mmW x 673mmD X 1230mmH) (5 sample queue
WEIGHT:	model) 346 lb (157kg) approx

ALPHATECHNOLOGIES
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