

# PREMIER™ RPA+

Rubber Process Analyzer Plus

- ◆ Measures dynamic properties of raw elastomers or mixed rubber before, during and/or after cure. The Premier™ RPA+ is equipped with Alpha's patent-pending PDM™ (Precision Dynamic Modulus™) system for advanced RPA testing.



ALPHATECHNOLOGIES

# PREMIER™ RPA+

Rubber Process Analyzer Plus

## Features



- Precision Dynamic Modulus™ (PDM™) system with reduces sample slippage
- Advanced Fourier Transform Rheology tests, including but not limited to long chain branching (LCB) determination
- NIST traceable standards ensure excellent reproducibility worldwide
- Pressure transducer standard to provide pressure measurement in addition to torque
- Advanced Fourier Transform Rheology tests, including but not limited to Long Chain Branching determination
- Operates using Enterprise software, a flexible LIMS system based on an open SQL database platform

## Performance



- DYNAMIC SYMMETRY™ - A system that ensures dies remain parallel to reduce variation
- SMART ALIGNMENT™ - A system that ensures excellent die cavity sealing for better repeatability
- Most accurate strain control
- Eliminates errors in modulus calculations when sample thickness deviates from the nominal value
- Characterize raw polymers
- Excellent test sensitivity to mixing errors or compound changes
- Suitable for quality control or research and development
- Improved reproducibility of modulus and tan delta results after cure

## Options



- Automation (5, 10, or 112 samples)
- Constant volume sample cutter
- Wide Assortment of films for different applications
- Multiple languages available

## Specifications



FREQUENCY:	0.1 to 3000 cpm (0.0016 to 50 Hz)
TEMPERATURE RANGE:	Ambient to 446°F (230°C)
MAX RAMP RATE:	33.8°F/sec (1°C/sec)
MAX COOL RATE:	32.9°F/sec (0.5°C/sec)
STRAIN:	±0.07% to ±1255% (±0.005 to ±90 degrees)
MEASURED DATA:	Torque, temperature, frequency, strain, pressure, and angle
CALCULATED DATA:	$G'$ , $G''$ , $J'$ , $J''$ , $J^*$ , $S'$ , $S''$ , $S^*$ , $\tan\delta$ , $\eta'$ , $\eta''$ , and $\eta^*$

TESTING STANDARDS:	Meets ASTM D5289, D6048, D6204, D6601, D7050, D7605, and D8059
REPORTS AND EXPORT FILES:	Numerous formats including text and Microsoft Excel © files
ELECTRICAL:	100/110/120/130 VAC ±10%, 60 ±3 Hz, 10-amp single phase 200/220/240/260 VAC ±10%, 50 ±3 Hz, 5-amp single phase
AIR PRESSURE:	80 psi (5.6 kg/cm <sup>2</sup> 51 kPa) minimum
DIMENSIONS:	W: 22 in (68 cm), H: 48 in (132 cm), D: 25 in (76 cm)
WEIGHT:	Net 346 lb (177 kg), gross 616 lb (280 kg)

