

# 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.

### Features

- Precision Dynamic Modulus™ (PDM™) system reduces sample slippage for more accurate viscosity and modulus data
- Advanced Fourier Transform Rheology test, including long chain branching (LCB) determination
- NIST traceable standards ensure excellent reproducibility worldwide
- Pressure transducer standard for blowing compounds
- Extensive ability to organize data into reports and perform statistical analysis
- Proprietary electronics product stable measurements over a wide range of torque
- Operates using Enterprise software, a flexible LIMS software based on a SQL server database

### 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
- PDM™ provides true strain control testing
- Eliminates errors in modulus calculations when sample shape deviates from the nominal value
- Characterize raw polymers or compounds
- Excellent test sensitivity to mixing errors or compound changes
- Suitable for quality control or research and development
- Improved repeatability and reproducibility of modulus and tan delta results

### Options

- Sample handling (5, 10, 36, 112)
- Sample prep
- Multiple die selections
- Multiple languages

## Specifications

Frequency:	0.1 to 3000 cpm (0.0016 to 50 Hz)	Testing Standards:	Meets ASTM D5289, D6048, D6204, D6601, D7050, D7605, and D8059
Temperature Range:	Ambient to 446°F (230°C)	Report Export:	Numerous formats including text and Microsoft Excel ©
Electrical:	100/110/120/130 VAC ± 10%, 60 ±3 Hz, 20 amp single phase. 200/220/240/260 VAC ± 10%, 50 ±3 Hz, 10 amp single phase.	Dimensions:	Width: 22 in (56 cm) Height: 48 in (122 cm) Depth: 25 in (64 cm)
Max Ramp Rate:	1.8°F/sec (1°C/sec)	Weight:	Net 346 lbs (157 kg), gross 616 lbs (280 kg)
Max Cool Rate:	0.9°F/sec (0.5°C/sec)	Air Pressure:	80 psi (5.6 kg/cm 2551 kPa) minimum
Strain:	±0.07% to ±1255% (±0.005 to ±90 degrees)	Calculated Data:	G', G'', G*, J', J'', J*, S', S'', S*, tanδ, η', η'', and η*
Measured Data:	Torque, temperature, frequency, strain, pressure, and loss angle		