

PREMIER™ RPA

Rubber Process Analyzer

- ▶ Measures dynamic properties of raw elastomers or mixed rubber before, during and/or after cure. Performs cure, temperature sweep, frequency sweep, and stress relaxation tests.




ALPHA TECHNOLOGIES

PREMIER™ RPA

Rubber Process Analyzer

alpha-technologies.com

Features



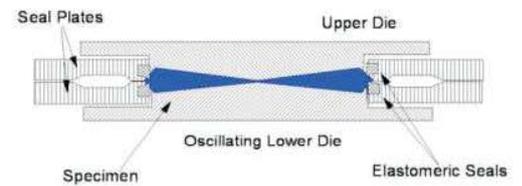
- NIST traceable standards ensure excellent reproducibility worldwide
- Pressure transducer standard to provide pressure measurement in addition to torque
- Proprietary electronics produce stable measurements over a wide range of torque values
- Measure dynamic properties of rubber before cure, during cure, and after cure
- Sealed biconical dies
- 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 parallel die closing, reducing variation
- SMART ALIGNMENT™ - A system that ensures excellent die cavity sealing for better repeatability
- Enhanced data sampling and processing using up to 64x faster data rate per cycle
- Up to 80 unique sub tests within a single test configuration
- Pre-strain setting for frequency and strain sweeps
- Improved sensitivity to mixing errors and/or compound changes



Options



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



ASTM D8059 Test

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)	REPORTS AND EXPORT FILES:	Numerous formats including text and Microsoft Excel © files
MAX RAMP RATE:	33.8°F/s (1°C/s)	ELECTRICAL:	100/110/120/130 VAC ±10%, 60 ±3 Hz, 15-amp single phase 200/220/240/160 VAC ±10%, 50 ±3 Hz, 7.5-amp single phase
MAX COOL RATE:	32.9°F/s (0.5°C/s)	AIR PRESSURE:	80 psi (5.6 kg/cm 550 kPa) minimum
STRAIN:	±0.07% to ±1255% (±0.005 to ±90 degrees)	DIMENSIONS:	W: 22 in (56 cm), D: 25 in (64 cm), H: 45 in (122 cm)
MEASURED DATA:	Torque, temperature, frequency, strain, pressure, and angle	WEIGHT:	Net 346 lb (157 kg), gross 547 lb (248 kg)
CALCULATED DATA:	G, G', G'', J, J', J'', S, S', S'', tanδ, η', η'', and η'''		