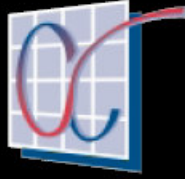


ALPHA
TECHNOLOGIES



ALPHA
TECHNOLOGIES

PPA

Production Process Analyzer

- Viscoelastic measurements before, during and after cure
- Analysis and control of raw polymers
- Analysis and control of rubber master batches and final mixed compound
- Accurate and meaningful assessment of compound processability
- Discriminating measurement of viscoelastic properties of cured compounds
- Fast testing cycles and efficient operation

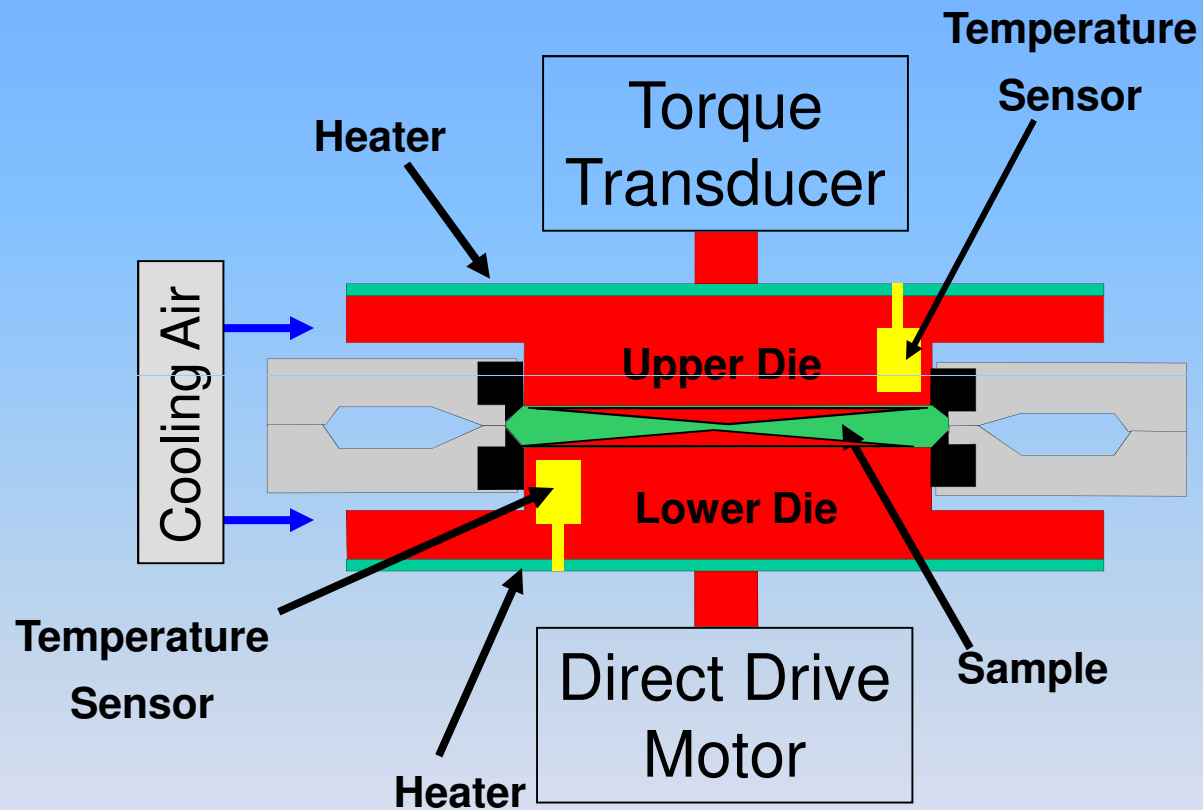


PPA 2000



PPA Dies with Automation

PPA 2000 Die Configuration



PPA 2000 Features

- Full capability of the RPA 2000
- Characterization of Rubber Samples Before, During and After Cure in one test on one sample
- Fundamental Rheological Properties
 - Modulus & Viscosity
- Robust Cabinet Designed for Factory Environment
- Five Sample Automation Standard

Range of Conditions in the PPA 2000

- Oscillation Frequency 0.1 to 3000 cpm
- Strain ± 0.02 to $\pm 90^\circ$
- Temperature 25° to 230° C

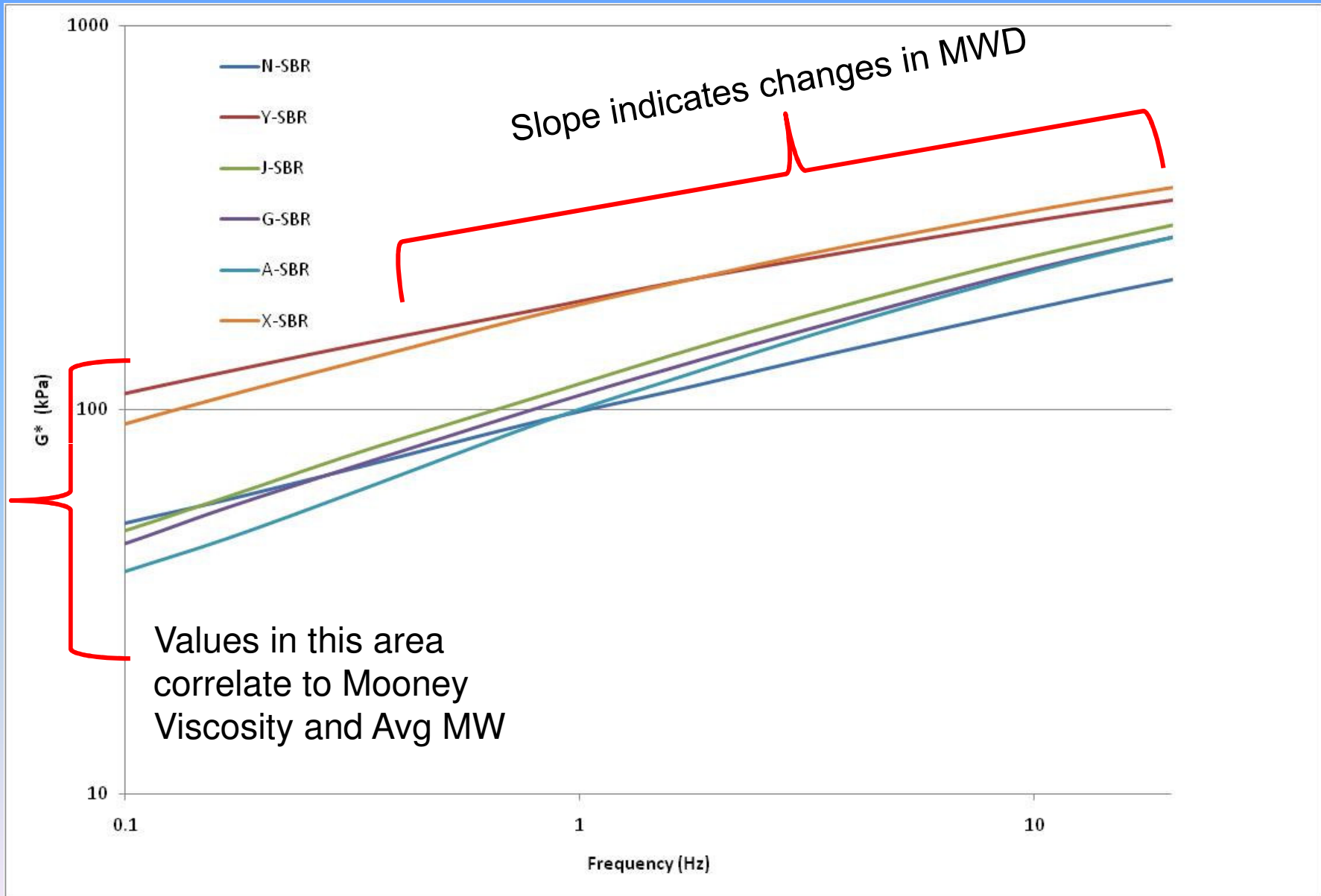
PPA 2000 Test Templates

- Capable of All RPA 2000 subtests and tests
- Standard Test Template in All PPAs
 - ASTM D5289 – isothermal cure tests
- Additional test templates are purchased as required
- Most Popular Test Options
 - ASTM D6204 – Processability
 - ASTM D6601 – Post Cure Dynamic Properties
 - “Triple Play” – Combination of D6204 & D6601 in one test

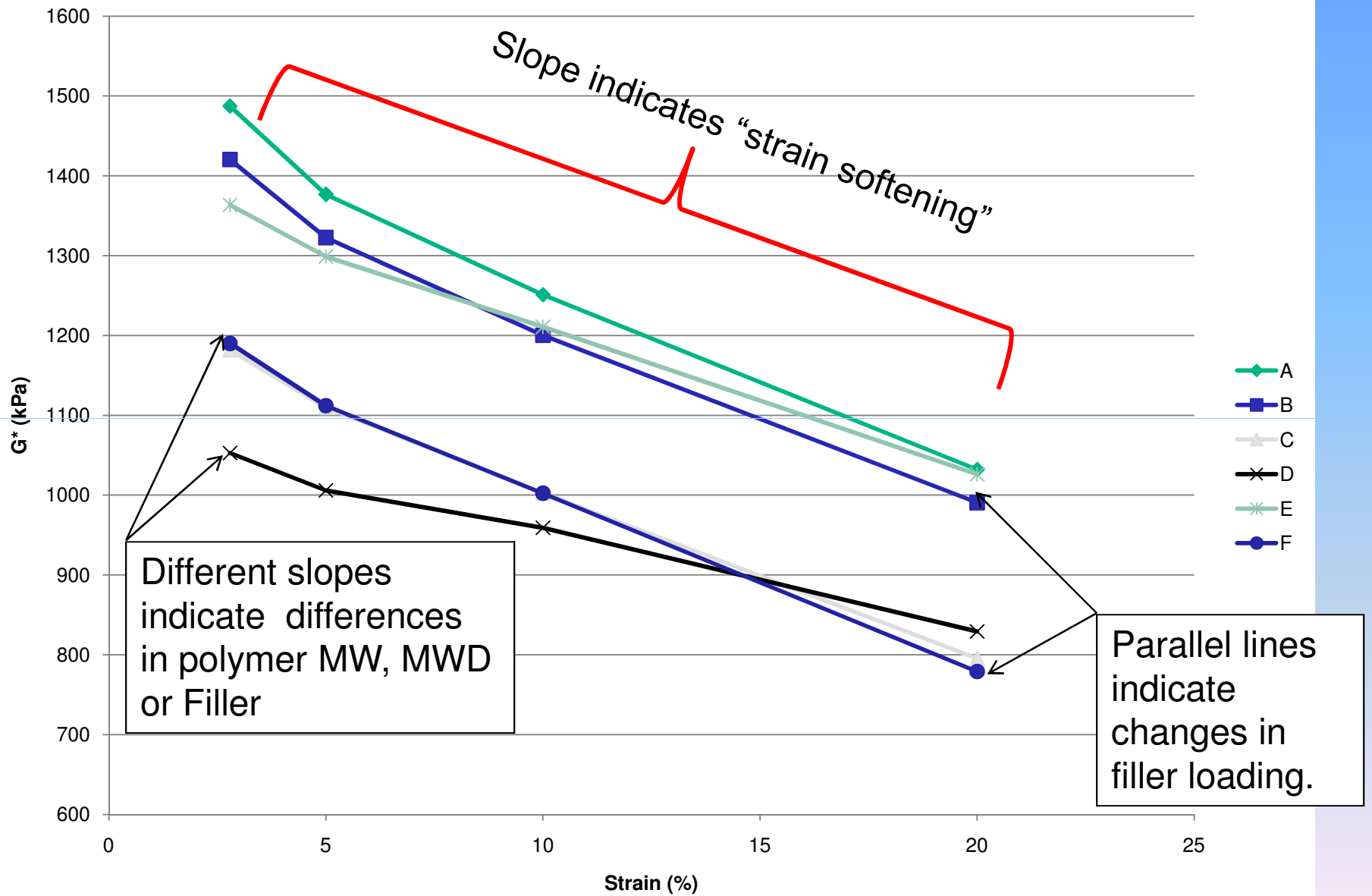
ASTM Test Templates

- D6204
 - Processability
 - Frequency sweep at 7% strain
 - Frequency sweep at 100% strain
- D6601
 - Post cure dynamic properties
 - Strain sweep at 1 Hz and 100 C or 60 C
 - Strain sweep at 10 Hz and 100 C or 60 C

ASTM D6204 Frequency Sweep at 7% Strain



ASTM D6601 Post Cure Strain Sweep at 1 Hz



PPA 2000 Factory Support

- Parts
 - Dies (wear)
 - Heaters
 - Temperature Probes
 - Upper and Lower Die Seals
 - Film Rolls (Nylon, Polyester or Polyimide)
- Accessories
 - Remote Viewer for Pathfinder Software
 - Sample Press (2000R)
- Calibration
 - Annual Torque Standard certification
- On-site Field Service