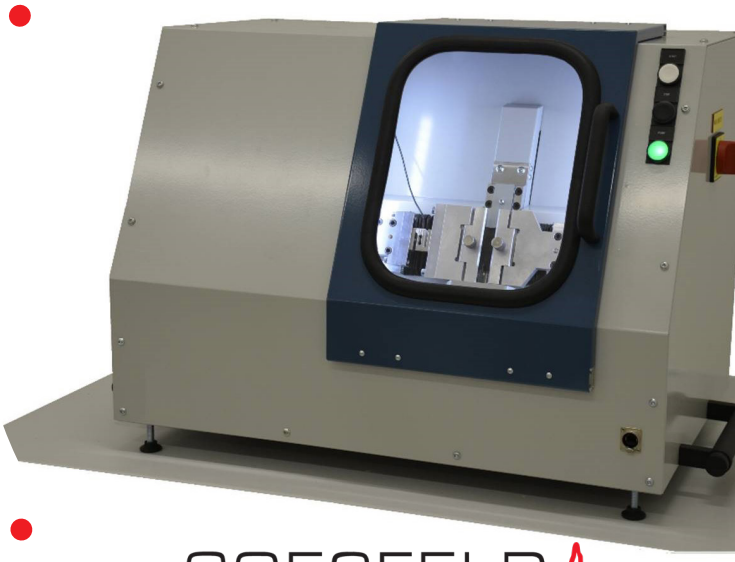
Endurica

Get Durability Right®

THE AMERICAS DISTRIBUTOR OF COESFELD

TESTING INSTRUMENTS



COESFELD MATERIALTEST

Test Fatigue Performance in your own lab using Endurica protocols running on Coesfeld instruments. Our partnership with instrument producer Coesfeld GmbH & Co. KG offers you proven, fully supported testing systems that are specialized for engineering analysis of elastomer durability.

Heat Build-Up Analyser

Featuring the Endurica Thermal Runaway Procedure *- reliable, automated heat build-up testing for elastomeric materials.*

- Characterizes rubber self-heating and thermal runaway properties.
- Ideal for calibrating and validating heat build up simulations.
- Ideal for determining exothermic reaction parameters needed for the Endurica thermal runaway model.
- Imposes dynamic tension/compression strain via bending of a cylindrical specimen that rotates.
- Controls strain amplitude via the angle of bending, and cycle rate via the rotation speed.
- Measures internal and external temperature vs. time.
- Easy to use control software.

Intrinsic Strength Analyser

Long-Term Fatigue Threshold Results in an Hour

- Measures cutting forces on an instrumented blade of controlled sharpness.
- Indicates the threshold fracture mechanical strength of a polymer network (i.e. the mechanical fatigue threshold) with a test that runs in an hour.
- Based on the Lake and Yeoh procedure.

BENEFITS

- Fully automated test execution with high test productivity.
- High test reliability via built-in quality control and noise minimization strategies.
- Full compatibility with modern durability simulation codes Endurica CL™ and fe-safe/Rubber™.
- Easy-to-use, works-every-time test setup – take the guess-work out of specifying test conditions.
- Fully supported by the world's leading experts in elastomer durability and in testing instrumentation for the rubber industry.
- Intuitive operation. Automated control, data acquisition and reporting.
- Supported in the Americas by the world leaders in elastomer durability testing methods.

Endurica LLC | 1219 West Main Cross St., Suite 201 Findlay, Ohio 45840 USA | +1 419.957.0543 | endurica.com

Tear & Fatigue Analyser

Featuring the Endurica Strain Ramping Procedure - *reliable, automatic fatigue crack growth testing*

- Measures crack growth under dynamic loading cycles.
- Produces the crack growth rate curve as a function of applied tearing energy.
- Produces parameters for describing effects of strain-crystallization on crack growth.
- Includes protocols for both fully relaxing (R=0) and nonrelaxing (R>0) conditions.
- 50% less data scatter than prior art methods.

Instrumented Chip & Cut Analyser

Advanced Measurement and Control for Chip & Cut Testing

- Measures chip and cut resistance of rubber compounds under cyclic impact loadings.
- Highly instrumented to enable control and measurement of forces and displacements during impact to mimic conditions experienced in demanding applications.
- The instrument can be also be operated in full contact mode as a friction and wear measurement device.

COESFELD MATERIALTEST

C-SUITE INSIGHTS

PLUG AND PLAY

Go with the solution that works right out of the box and integrates with your CAE workflows.

HIGH PRODUCTIVITY

Traditional open-duration fatigue tests mean lack of control over testing schedule. Use our finitely-scoped methods to take back control of your testing schedule.

LOW NOISE

Endurica testing methods significantly reduce scatter and get more reliable data.

AUTOMATE YOUR TESTING

Free up lab techs with fully automated test execution.

QUALITY

Go with the global market leader for vision-based crack growth testing systems: Coesfeld.

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