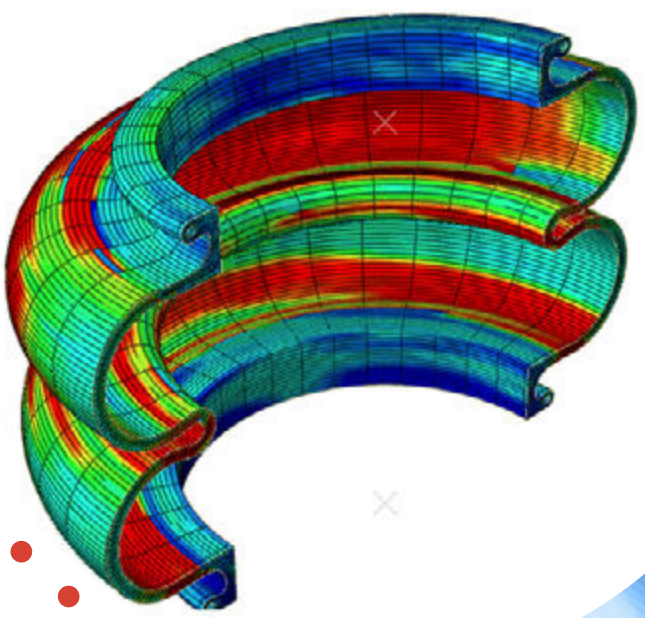


Endurica CL™

FATIGUE ANALYSIS SOFTWARE

Give Endurica CL™ a finite element simulation of your loading history, specify your material(s), then CL computes the fatigue life of your rubber part.

BENEFITS

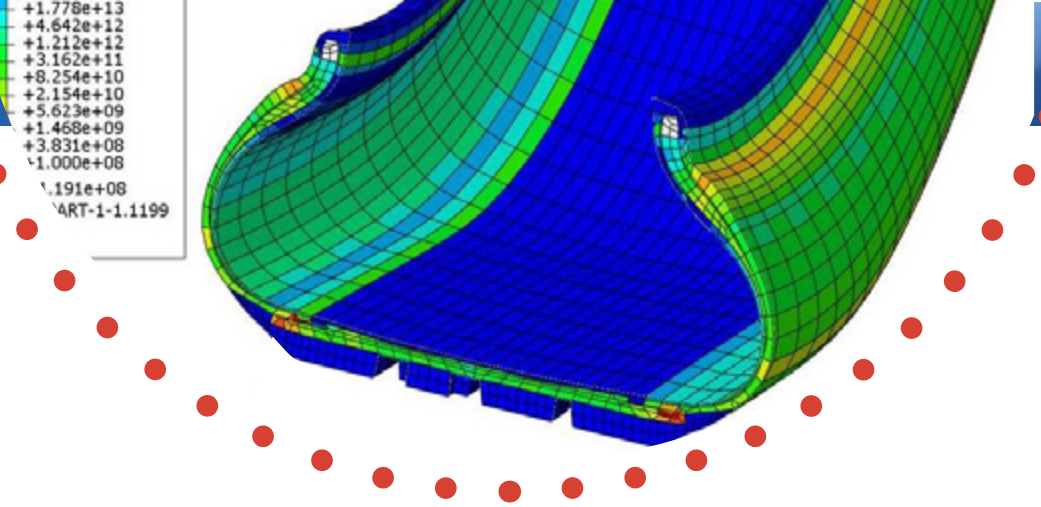
- Calculate fatigue life and failure location on your part.
- Diagnose and resolve material, geometry, and loading issues to get durability right.
- Mobilize quickly with ready-to-use workflows that give you the edge.
- Scope analyses to fit your aim and budget with support for both "draft quality" and "high accuracy" simulations.

FEATURES

- CL offers the right material models for capturing your elastomer's behavior.
  - Nonlinear hyperelastic stress-strain behavior, Mullins effect, and cyclic softening.
  - Rate laws for both cycle- and time-dependent crack growth, including threshold effects and ozone attack.
  - R-ratio effects for both strain crystallizing and amorphous materials.
  - Temperature and ageing dependence of material properties.
  - Viscoelastic dissipation.
- CL provides support for:
  - Infinite Life method
  - Safe Life method
  - Safety Factor
  - Repeats to failure
- CL offers accurate accounting of damage accrual under multiaxial, variable amplitude loading history.
  - Crack precursor growth tracking based on Fracture Mechanics.
  - Critical Plane Analysis checks every potential crack orientation and location to find the true worst case.
  - Rainflow Counting on history of the critical plane.
  - Reports fatigue life as repeats of the given history.

Endurica
Get Durability Right®

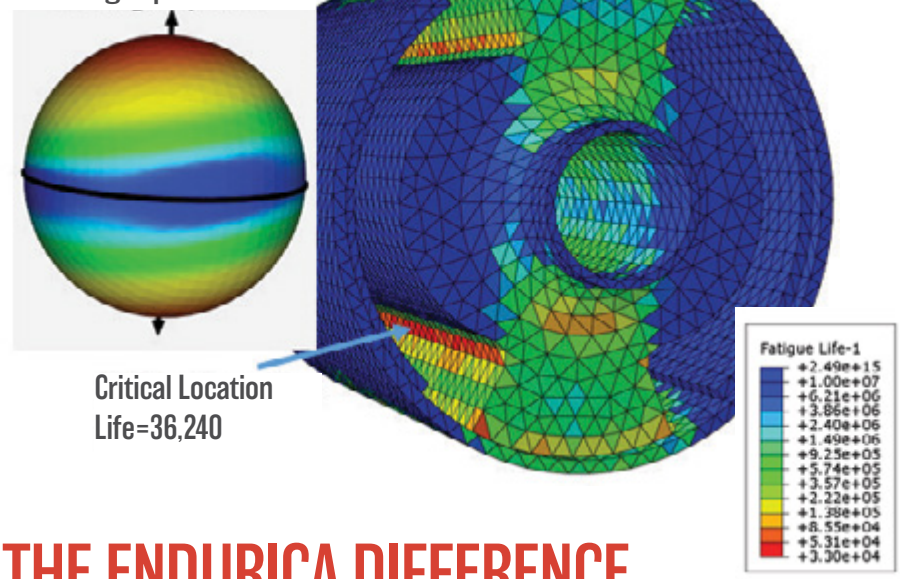
Endurica LLC | 1219 West Main Cross St., Suite 201 Findlay, Ohio 45840 USA | +1.419.957.0543 | endurica.com



TECHNICAL NOTES

- Compatible FEA solvers: Abaqus, Ansys, MSC/Marc
- OS: Windows or Linux
  Licensing: node-locked or network shared; lease or perpetual

Road Load
Damage Sphere



Critical Location
Life=36,240

THE ENDURICA DIFFERENCE

Learn more at:
www.endurica.com/fatigue-solver-software/endurica-cl
Call today to request a trial:
+1.419.957.0543

C-SUITE INSIGHTS

FOCUS ON PRODUCT TECHNOLOGY

Our tools free you up to focus on getting your product right. Avoid the costs of deep methods development programs.

UNMATCHED ACCURACY

Don't waste your time with outdated, low-accuracy methods. Critical Plane Analysis is the gold standard for handling realistic load cases.

SHORT LEARNING CURVE, LARGE USER BASE

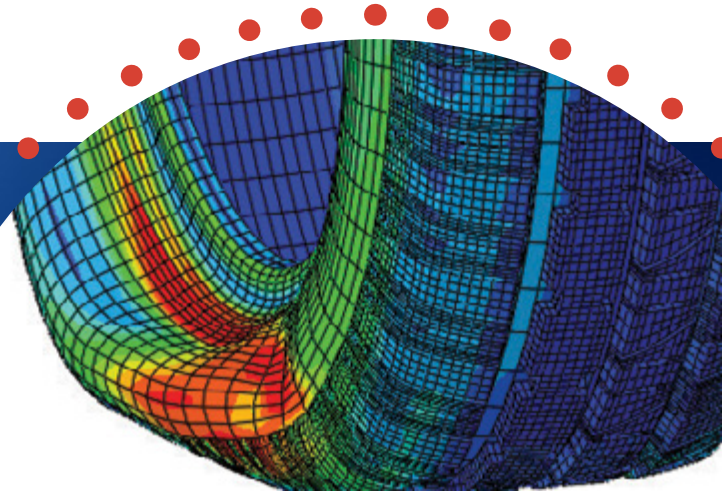
Our tried-and-true workflows will have your team winning on durability. We've trained hundreds of "fatigue ninjas," and we can bring your team up to speed in a few days.

LIGHTWEIGHTING, SUSTAINABILITY, COST-REDUCTION

The trick is to do it without sacrificing durability. Use our code to quickly eliminate non-viable solutions.

SUPPORT FOR POPULAR FEA CODES

One license gives you support for all of the major elastomer FEA codes: Abaqus, Ansys and MSC/Marc.

Endurica LLC
1219 West Main Cross St.
Suite 201
Findlay, Ohio 45840 USA
+1.419.957.0543 | endurica.com

Endurica
Get Durability Right®