

# COMPANION FATIGUE PROPERTY COMPARATOR

STANDALONE WEB APP



Endurica Companion is the standalone web app that makes it easy to find the right rubber properties to ensure durability in your application.

## BENEFITS

- Navigate property tradeoffs confidently.
- Evaluate more material options for your specific application.
- Get fast simulation results available anywhere, anytime.
- Diagnose application issues with insightful visualizations of material behavior.

## FEATURES

- Define your materials in terms of its key properties.
- Store, find, retrieve material properties in the secure app database.
- Define your application scenario in terms of max and min strain, temperature, deformation mode, mode of control.
- Compare fatigue simulation results.
- Material outputs: stress-strain curve, crack growth rate curve, precursor size calibration curve, Haigh diagram.

## THE ENDURICA DIFFERENCE

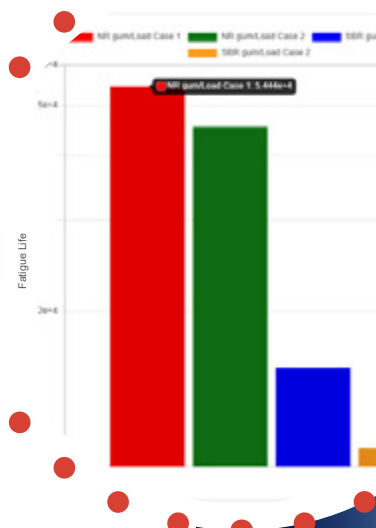
Download the app today:  
[www.companion.endurica.com](http://www.companion.endurica.com)



40%

40% of product failure is attributed to poor materials selection

- Win on durability. Companion is built on the industry-leading Endurica CL fatigue solver.
- Avoid poor material selection decisions.
- History outputs: strain history, stress history, SED history, CED history, crack open/closure state.
- Result outputs: fatigue life, damage sphere.



 2020 TIBBETTS AWARD WINNER

# Endurica

Get Durability Right®

# HOW COMPANION WORKS

1) Specify any two materials by entering:

- modulus
- intrinsic strength
- tear strength
- crack growth rate properties
- crack precursor size

2) Then specify your application by entering

- The mode of deformation (simple, planar or biaxial tension/compression or simple shear),
- the limits (max and min) of the dynamic loading cycle,
- the mode of control (strain control, energy control, stress control) and the temperature

Companion uses Endurica's Critical Plane Analysis to rank your compounds for fatigue performance in your specific application.

Companion provides plots showing your materials' stress-strain behavior, crack growth behavior, sensitivity to crack precursor size, strain-life / Haigh diagram, and crack orientation.

Companion helps you Get Durability Right®.

## GET STARTED WITH COMPANION FOR FREE!

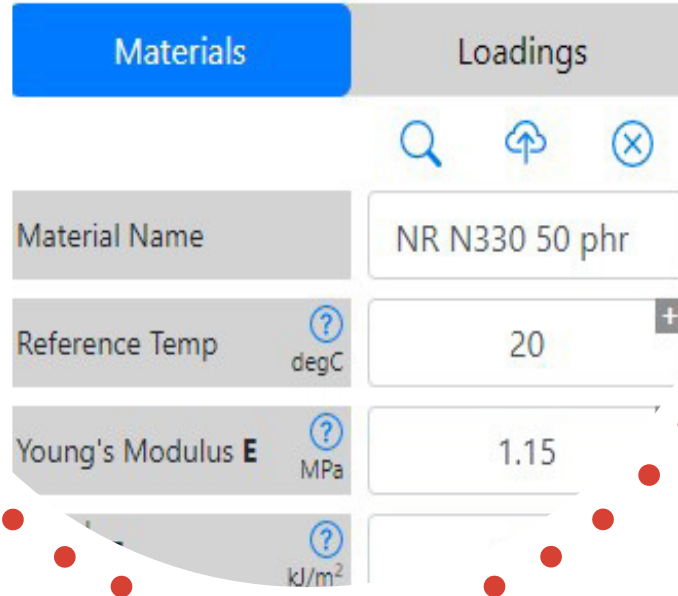
Then subscribe to get advanced features like:

- save your materials database
- temperature dependent properties
- and more

## WHY?

Our mission with Companion is to provide materials professionals with the benefits of the tools and language your product designers are using, but without the intense simulation and FEA requirements. Let's break down the silos between materials and product design.

Go to [companion.endurica.com](https://companion.endurica.com) to try it today!



## C-SUITE INSIGHTS

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### NO SILOS

Close the gaps between your materials and design professionals. With Companion they will be talking the same language.

**GET THE MATERIAL RIGHT — BEFORE** purchasing materials, and **BEFORE** mixing and molding. Give your materials people application-specific visibility into fatigue performance.

### IT'S NOT BLACK MAGIC IT IS HARD SCIENCE

With fracture mechanics and critical plane analysis at your fingertips, mastery of your application is ready to happen now.

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