

## AGEING MODULE - BASIC



*Recommended for cases with fatigue life longer than  $10^6$  cycles, and when ageing must be taken into account for a specific aged condition.*

**Note: It is required to run FPM-IS in order to run this Module.**

The ageing module is recommended when the material operates below the endurance limit. Although cracks may not grow due to mechanical fatigue, the material properties may still evolve with exposure to heat history. The results of this module enable the user to compute fatigue performance considering both unaged and aged material properties.

### Experiment Overview

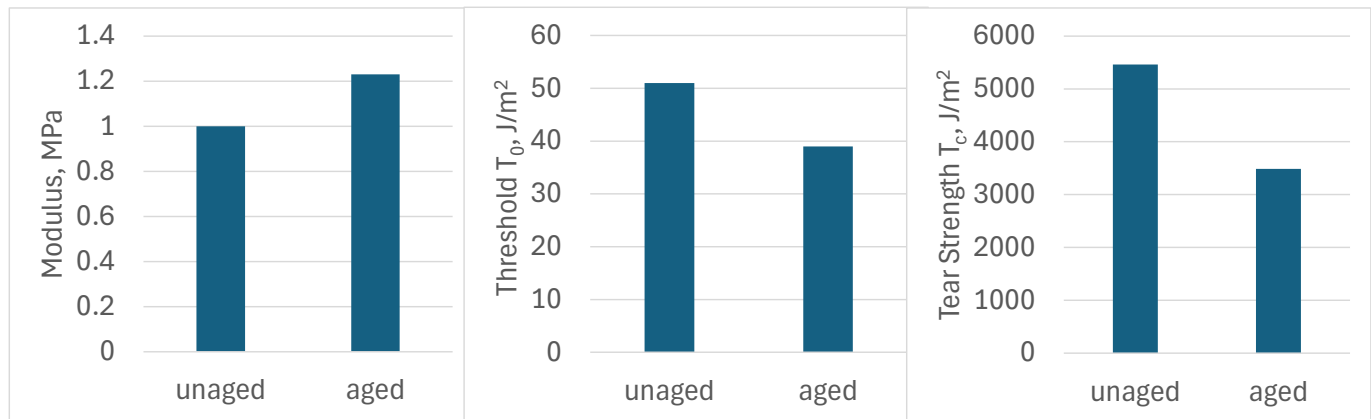
- ageing in oven at 1 client-specified time and temperature
- static tearing raw data, unaged vs. aged
- cutting force raw data, unaged vs. aged
- number of slabs needed for test: 5

**Use with**

- Simple comparison of unaged and specified aged behavior

### Analysis and Reporting / Deliverables

- stiffness, unaged vs. aged
- cutting vs. tearing curve, unaged vs aged
- intrinsic strength  $T_0$ , unaged vs aged
- tearing energy  $T_c$ , unaged vs aged
- fatigue threshold strain, stress, energy, unaged vs aged (when ordered with FPM-C)



Comparison of unaged and aged stiffness and crack growth rate law parameters.

**FPM-AB Ageing Module - Basic**

**\$4,975**