

RELIABILITY MODULE



Recommended when probability of failure needs to be estimated.

If ordered with FPM-C, includes analysis of strain life curve dependence on probability of occurrence.

The Reliability Module characterizes the rate of occurrence of crack precursors of a given size. This information is useful for estimating likely strength or fatigue failure rates for quality/warranty applications.

Experiment Overview

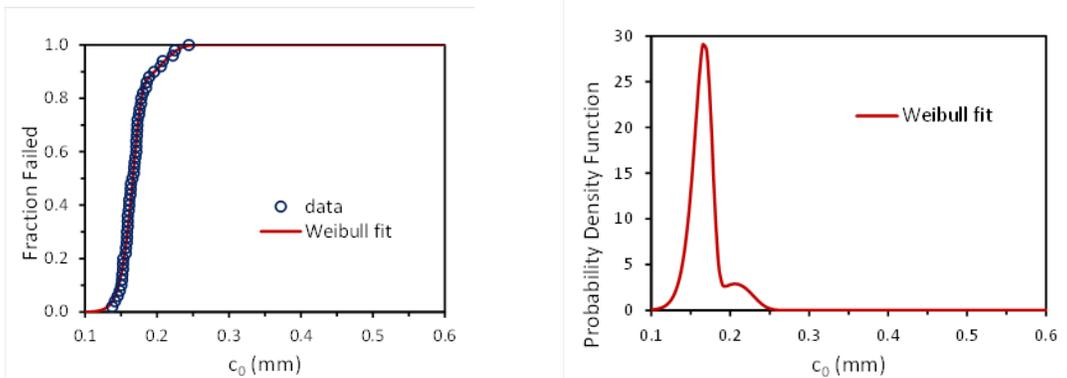
- 50 simple tension pull-to-failure experiments
- static tearing, 3 replicates
- number of slabs needed for test: 10

Use with

- Reliability estimates
- Weibull distribution

Analysis and Reporting / Deliverables

- summary statistics for pull to failure (strain, stress, energy at break)
- calculation of crack precursor size distribution c_0
- Weibull distribution parameters relating frequency of occurrence to size of crack precursor



Typical Weibull analysis results showing cumulative and probability density distributions for crack precursor size.



FPM-RL Reliability Module (23°C)

\$3,450