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Proposte Tesi con Digima

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Fatigue Analysis of Reinforced Plastic Components

Keywords

Fatigue, Life Assessment, Reinforced Plastics

Hexagon Software

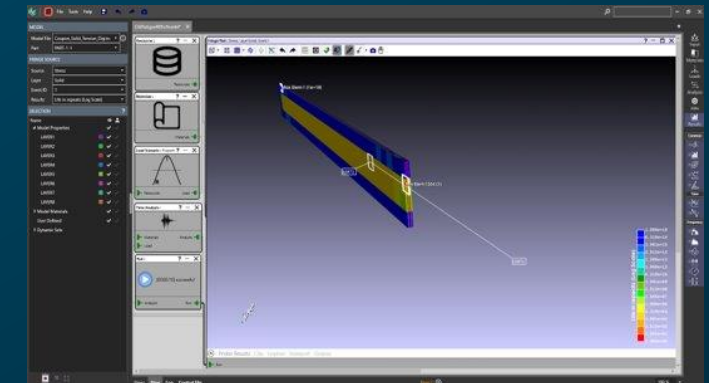
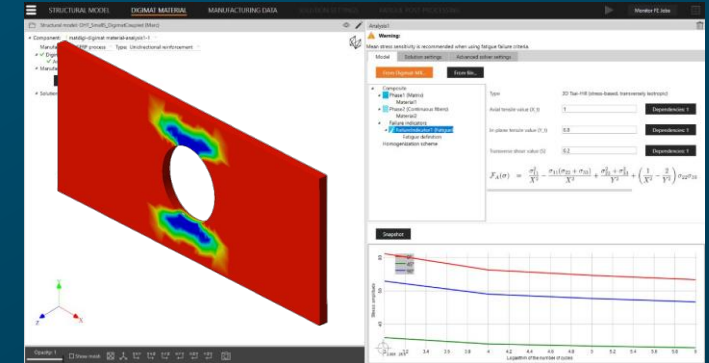
Digimat-MF, Digimat-MX, Digimat-MS, Marc, Nastran, CAEfatigue

Summary

Fatigue analysis of reinforced plastics is crucial for automotive and aerospace applications to ensure long-term durability and safety under repeated loads. It supports optimized designs, weight reduction, and extended component lifespan in demanding conditions.

Digimat simplifies the assessment of fatigue life for short and continuous fiber-reinforced plastics and additive manufacturing parts. Along with the Tsai-Hill failure criteria for short fiber composites, the newly introduced Tsai-Wu 3D orthotropic criteria and Gerber fatigue model provide accurate fatigue analysis for UD and additive manufactured components.

Fatigue analysis can account for both constant and variable amplitude loads, with variable load investigations possible through the CAEfatigue interface in Digimat.



Thank you.



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