

Crack-like Effectiveness of Some Discontinuities in AA2024

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Abstract

Maintaining aircraft airworthiness to ensure the fleet's safe operation and maintain its readiness is critically dependent on accurate modelling and reliable predictions of fatigue crack growth. In this process a knowledge of the representative initial discontinuity sizes that cause fatigue crack nucleation and early growth in aircraft is essential. Here the effective pre-crack size of aluminium alloy 2024, from samples of aircraft production material and tested under aircraft spectra, are considered.

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