

Alternative Test Method for the Fire Safety Investigation of Magnesium Based on Small Scale Test Samples

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The presentation will describe an alternative test method for the fire safety investigation of magnesium based on small scale test samples up to approximately 10 g of sample weight for aircraft interior application. The test sample will be heated up with a constant heat source of app. 1050°C. The temperature of the test sample during heat application will be recorded as well as the time to ignition and self-extinguishing behaviour. The presented test results will demonstrate the influence of (e.g)

- selected alloy types,
- some design features, such as corrosion protection systems,
- final coating
- sample shape and mass
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The presentation also includes a material ranking of selected magnesium alloys in comparison to the two gallon oil burner magnesium test method proposed by FAA.