

Insulation Blankets Contamination from Dust, Lint and Corrosion Inhibiting Compounds

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Following the Swissair flight 111 accident, the industry has focused on the potential risk to aircraft safety from fires originating in areas inaccessible to flight and cabin crews. The Transportation Safety Board of Canada has also suggested that further work is required to mitigate the risk from ignition sources caused by electrical equipment and to reduce the flammability of adjacent materials, in particular, contaminated Thermal Acoustic Insulation (TAI).

A Thermal Acoustic Insulation Contamination & Aging Task Group has been formed under the auspices of the International Aircraft Materials Fire Test Working Group. Currently the primary mitigation of the flammability threat from contaminated Thermal Acoustic Insulation materials is by routine directed cleaning tasks; however aircraft surveys and in-flight fire occurrences have illustrated that one of the most prevalent contaminants is dust, lint, and Corrosion Inhibiting Compounds. The potential fire threat that might exist from these contaminants is discussed based on test results from the Transport Canada Arc-Fault Test Rig.