

ABSTRACT

FAA Burnthrough Apparatus Test Method Development

Investigation of Effect of Altitude on Test Results

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The FAA has developed and analyzed a test method to determine the burnthrough resistance of thermal/acoustical blankets. During the analysis, round robin tests have been conducted at a variety of test laboratories. Results indicate that the Johns Manville Fire Test Laboratory, located in Littleton, Colorado, consistently yields longer burnthrough times even when flame heat flux measurements and temperatures are within or close to specifications. One possible cause of these differences is the altitude of the Littleton laboratory, greater than 5000 feet, and its effect on combustion during the test.

This paper will present results from a test program involving physical removal of the JM Test Rig to sea level at the FAA Fire Test Laboratory. Burnthrough testing will be conducted on several materials in at the high altitude location, then the Johns Manville apparatus will be transported to sea level with identical settings to test identical samples. Differences in test results at altitude vs. sea level will be analyzed.

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