

Thermal/Acoustic Insulation Flame Propagation Apparatus

firetesting
technology

(FAR Part 25 Appendix F Part VI;
Airbus AITM 2.0053; Boeing BSS 7365)



This test method is used to evaluate the flammability and flame propagation characteristics of thermal/acoustic insulation when exposed to both a radiant heat source and flame in a test chamber.

The radiant heat is applied by means of an electric panel, inclined at 30°, and directed at a horizontally mounted specimen. The radiant panel generates a radiant energy flux distribution ranging from a nominal maximum of 1.0W/cm² to a minimum of 0.1W/cm², operating at temperatures up to 816°C. The flux is controlled with a thyristor power unit and measured with a 25.4mm cylindrical water-cooled total heat flux density, foil type Gardon Gage. The outputs from the thyristor and

heat flux meter are displayed on a programmable LCD meter.

To ignite the specimen a propane venturi pilot burner with an axially asymmetric burner tip is moved back and forth from the outside of the test chamber.

The electric panel and pilot burner are located in a test chamber. The sides, ends and top of the chamber are insulated with a fibrous ceramic insulation. The front side has a high temperature, draft free observation window. Below the window is a sliding platform to enable the user to easily insert either the calorimeter holding frame or specimen holding system (retaining and securing frames).

The chamber temperature is monitored with a thermocouple and displayed on a programmable LCD meter. The test duration is measured with a programmable electronic LCD timer.

Options include a:

- User friendly software package that automatically configures a data acquisition unit. This user interface is a Microsoft Windows based system with push button actions and standard Windows data entry fields, drop down selectors, check boxes and switches.
- Stainless steel hood to collect the smoke gases.
- Smoke measurement system

TECHNICAL SPECIFICATIONS

Dimensions	1.9m (W) × 1.9m (H) × 0.75m (D)
Hood	2.5m (W) × 2.0m (H) × 1.4m (D)

SERVICES

Water	15-25°C, 2.4bar (35 psi), 200-300 ml/min.
Electrical	40A supply at 230VAC
Gas	Commercial grade propane
Extraction system	30-85m ³ /min

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FTT's site in East Grinstead, is home to the largest group of fire scientists and instrumentation design engineers working on fire testing instrumentation, and is at the heart of our design and manufacturing. For almost 30 years FTT has provided the highest quality instruments and service for fire testing and research professionals worldwide, directly and through its extensive global sales and support network.



Quality

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- ISO 14001, ISO 9001 certified

Integrity

- A dedicated team passionate about fire testing instrumentation and continuous product improvement
- Delivering reliable, robust and easy-to-use instruments for the past 30 years

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