

TEXTILE FLAMMABILITY TESTER



Textile Flammability Tester — ToronFT™ TF 700

ToronFT™ TF 700 Textile Flammability Tester is a precision flame retardancy testing instrument designed to evaluate the flame retardant properties of hanging fabrics — including curtains and drapes — for single-layer or multi-layer fabric constructions. The ToronFT™ TF 700 is specifically engineered for fabrics with a weight not exceeding 700 g/m² (21 oz/yd²), covering the full range of commercial curtain and drapery fabrics used in residential, commercial, and institutional buildings.

The Textile Flammability Tester features a 12 mm thick Marinite mineral plate (calcium silicate) enclosure wrapped in 1.2 mm thick 304 stainless steel, an open front test box design with a smooth black painted interior providing the standardized, contained burning environment needed for reproducible curtain flame retardancy qualification.

APPLICATIONS

Textile Flammability Tester — ToronFT™ TF 700 Applications

- Curtain and drapery manufacturers: flame retardant qualification for single-layer and multi-layer hanging fabric products
- Third-party fire testing and certification laboratories: curtain flame retardancy testing per NFPA 701 Method 1
- Interior designers and procurement specialists: fire performance verification of curtain and drapery products for public buildings and high-occupancy spaces
- Textile flame retardant treatment companies: treatment effectiveness verification for curtain and drapery substrates
- Quality assurance departments: production-lot and incoming inspection flame retardancy sampling for curtain fabrics



FEATURES

Textile Flammability Tester — ToronFT™ TF 700 Key Features

- Specifically designed for curtains and drapes: single-layer and multi-layer hanging fabrics with weight $\leq 700 \text{ g/m}^2$ (21 oz/yd²)
- Enclosure construction: 12 mm thick Marinite mineral plate (calcium silicate) — thermally stable, non-combustible test chamber
- Outer cladding: 1.2 mm thick 304# stainless steel — durable, corrosion-resistant exterior for long service life
- Open front test box design — allowing the specimen to be suspended in the exact hanging configuration encountered in service
- Interior surface: smooth black paint — non-reflective background for clear visual observation and documentation of burning behavior

THEORY & METHOD

Theory and Method

The curtain burning test evaluates the flame retardant performance of hanging fabric specimens in the vertical orientation — replicating the actual installation configuration of curtains and drapes in service. The fabric specimen is suspended vertically in the open-front test box of the ToronFT™ TF 700 and ignited at the bottom edge using the standardized ignition source specified by NFPA 701 Method 1. After the ignition period, afterflaming time, afterglowing time, char length, and whether any flaming drip or debris ignites material below the specimen are measured and compared against the acceptance criteria.

The Marinite mineral plate (calcium silicate) construction of the test box provides a thermally stable, non-combustible enclosure that does not contribute heat to the test event. The 1.2 mm thick 304 stainless steel outer cladding protects the

Marinite core from physical damage and moisture. The smooth black painted interior surface of the open test box provides a non-reflective background that facilitates visual observation and photography of the burning specimen during the test.

TECHNICAL SPECIFICATIONS

Textile Flammability Tester — ToronFT™ TF 700 Technical Specifications

Parameter	Specification
Applicable Fabrics	Single-layer and multi-layer curtains and drapes; weight ≤ 700 g/m² (21 oz/yd²)
Enclosure Material	12 mm Marinite mineral plate (calcium silicate)
Outer Cladding	1.2 mm thick 304# stainless steel
Test Box Design	Open front
Interior Surface Finish	Smooth black paint



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