



TORONTECH

UPHOLSTERED FURNITURE FLAME RETARDANT PERFORMANCE TESTING MACHINE



Upholstered Furniture Flame Retardant Performance Testing Machine - ToronFT™ FFR-U

ToronFT™ FFR-U Upholstered Furniture Flame Retardant Performance Test Apparatus is a comprehensive testing system engineered to evaluate the flame retardant properties of materials used in upholstered furniture and related products. Suitable for testing a wide variety of flame retardant textiles including woven fabrics, knitted fabrics, coated products, laminated materials, and composite assemblies, the instrument assesses the tendency of these materials to ignite, sustain combustion, and contribute to flame spread when exposed to an open flame.

Developed in accordance with the CATB117 (Technical Bulletin 117) and 16 CFR 1615 (FF3-71) standards for children's sleeping bags, the ToronFT™ FFR-U is an essential instrument for furniture manufacturers, fabric suppliers, and compliance testing laboratories operating in the North American market.

APPLICATIONS

Upholstered Furniture Flame Retardant Performance Testing Machine - ToronFT™ FFR-U Applications

- Flame retardant performance testing of upholstered furniture cover fabrics
- Evaluation of woven, knitted, coated, laminated, and composite textile materials
- Compliance testing for children's sleeping bags (sizes 0-6) per 16 CFR 1615 (FF3-71)
- Quality assurance for furniture manufacturers supplying the North American market
- Research and development of flame-resistant upholstery textiles and composite products



Standards

- CATB117 (Technical Bulletin 117, Section A, Part I): Resilient Cellular Materials: Tests for Flame Retardance
- 16 CFR 1615 (FF3-71): Standard for the Flammability of Children's Sleepwear (Sizes 0-6X)

FEATURES

Upholstered Furniture Flame Retardant Performance Testing Machine - ToronFT™ FFR-U Key Features

- Comprehensive flame retardant testing for woven, knitted, coated, laminated, and composite upholstery textiles
- Integrated design-box CNC machined enclosure for high structural precision and dimensional consistency
- Exhaust fan on the top panel with hose connector for efficient combustion gas extraction
- Glass inspection window on the front chassis for real-time visual observation during testing
- Fixed burner angle of 25 degrees for standardized inclined flame exposure
- Unified test part and control unit design for simplified operation and reduced footprint

THEORY & METHOD

Theory and Method

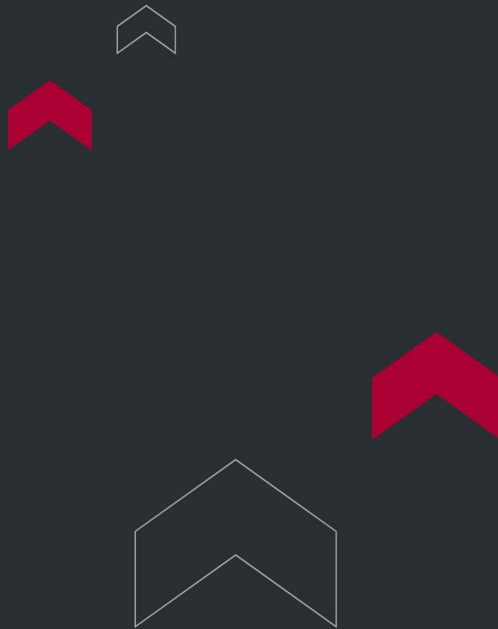
The ToronFT™ FFR-U evaluates flame retardant performance by exposing textile specimens to an open flame at a defined angle within a precision-designed integrated enclosure. The test apparatus consists of a test part and a control unit, formed using an integrated design-box CNC machined structure for high dimensional accuracy and repeatability. The 25-degree

burner angle replicates the inclined surface flame exposure scenario relevant to upholstered furniture and sleeping bag materials. An exhaust fan mounted on the top of the instrument with a hose connector ensures effective removal of combustion gases and particulates from the test environment. A glass inspection window on the front of the chassis allows direct visual monitoring of the specimen's combustion behavior throughout the test, enabling real-time assessment of ignition, flame spread, and carbonization characteristics.

TECHNICAL SPECIFICATIONS

Upholstered Furniture Flame Retardant Performance Testing Machine - ToronFT™ FFR-U Technical Specifications

Parameter	Specification
Construction	Integrated design-box CNC machined enclosure (test part + control unit)
Exhaust System	Top-mounted exhaust fan with hose connector
Observation Window	Glass inspection window on front of chassis
Burner Angle	25°
Applicable Standards	CATB117 (Technical Bulletin 117) Section A-Part I; 16 CFR 1615 (FF3-71)
Applicable Materials	Woven, knitted, coated, laminated, composite textiles and upholstery fabrics



Torontech Inc.

251 Consumers Road, Suite 1200
Toronto, Ontario, M2J 4R3, Canada 🇨🇦

Phone: +1 416 368 2721 | Fax: +1 416 981 7652
Email: info@torontech.com

Torontech, LLC

601 Brickell Key Drive, Suite 700
Miami, FL 33131, USA 🇺🇸

Toll-Free: 1-866-383-7919
Email: sales@torontech.com

Torontech ME FZE

Meydan Grandstand, 6th Floor,
Meydan Road, Nad Al Sheba,
Dubai-261440, UAE 🇦🇪

Phone: +971 488 19252
Email: me@torontech.com

