



VW-1 CABLE FLAME TESTER

VW-1 Cable Flame Tester - ToronFT™ VW-1

ToronFT™ VW-1 Cable Flame Tester is a large-format laboratory instrument designed for testing the flame retardant performance of wire and cable insulation under abnormal service conditions such as overheating and overcurrent. Produced in strict accordance with UL 1580.1 through 1080.14 standards and fully evaluated by UL Company, the ToronFT™ VW-1 complies with the VW-1 Flame Test combustion test standard — one of the most widely required and recognized wire and cable large burning qualification tests in North America.

The ToronFT™ VW-1 has been evaluated by UL against FT-1 and FT-2 of CSA, and complies with UL 1581, UL 13, UL 444, UL 1655, and FT-1 and FT-2 of CSA. It is widely used by wire and cable manufacturers, colleges and universities, and commodity inspection departments as the primary large burning tester platform for VW-1 and FT-series flame test certification.

APPLICATIONS

VW-1 Cable Flame Tester - ToronFT™ VW-1 Applications

The ToronFT™ VW-1 is designed for VW-1 large burning testing and flame retardant performance evaluation of:

- Building wire, power cables, and control cables for VW-1 flame test certification required by UL 1581 and related product standards
- Flexible cords, appliance wiring materials (AWM), and equipment wire requiring VW-1 large burning tester qualification
- Communication cables, instrumentation cables, and data transmission cables requiring VW-1 or FT-1/FT-2 large burning test compliance
- Wire and cable products produced under abnormal service conditions — including overheating and overcurrent scenarios — requiring flame retardant performance verification

- Wire and cable manufacturer in-process and final product quality assurance large burning testing for VW-1 and CSA FT-series compliance
- Academic and commodity inspection laboratory large burning tester evaluation of wire and cable flame retardant performance for market access and certification



Standards

The ToronFT™ VW-1 is designed to comply with the following international standards for large burning tester and wire and cable flame retardant testing:

- UL 1581: Reference Standard for Electrical Wires, Cables, and Flexible Cords (VW-1 Flame Test)
- UL 13: Standard for Power-Limited Circuit Cables
- UL 444: Standard for Communications Cables
- UL 1655: Standard for Residential Communications Cables
- CSA FT-1 and FT-2: Canadian Standards Association Flame Test Standards for Wire and Cable

FEATURES

VW-1 Cable Flame Tester - ToronFT™ VW-1 Key Features

- Fully UL-evaluated VW-1 large burning tester — produced in strict accordance with UL 1580.1-1080.14 standards, evaluated by UL Company, compliant with VW-1 Flame Test combustion test standard
- Large test chamber volume greater than 4 m² area — providing ample space for VW-1 large burning tests of a wide range of wire and cable specimen sizes and configurations
- Rigid CNC-processed steel plate frame construction (box body area >2.0 m², 1.2 mm thick) ensures dimensional stability and long-term durability for high-frequency production large burning tester use
- Electrostatic high-temperature baking paint finish on the steel plate provides excellent corrosion resistance, rust prevention, and thermal stability in continuous wire and cable large burning test environments
- Two-layer interior paint system — anti-rust primer layer plus black matte outer layer — delivers long-term protection and a clean testing environment interior for consistent VW-1 large burning test conditions
- Beautiful appearance and simple internal structure make the ToronFT™ VW-1 fast and straightforward to operate — ideal for high-volume production quality assurance and commodity inspection large burning tester applications

- Complies with UL 1581, UL 13, UL 444, UL 1655, and CSA FT-1/FT-2 — providing VW-1 large burning test results accepted by UL, CSA, and North American wire and cable certification programs

THEORY & METHOD

Theory and Method

The VW-1 large burning test evaluates the flame retardant performance of a vertically suspended wire or cable specimen by applying a standardized Bunsen burner flame at a 20° angle to the specimen surface for a defined number of application cycles. The specimen is considered to pass if it does not propagate flame beyond a specified distance from the ignition point and does not allow burning material to fall and ignite indicator tissue paper placed below.

In the ToronFT™ VW-1, the wire or cable specimen is mounted in the large test chamber (volume greater than 4 m³). The box body is a frame construction with an area greater than 2.0 m², covered with 1.2 mm thick electrostatic high-temperature painted steel plate, processed by CNC machine tools for dimensional accuracy and repeatability. The interior finish consists of two layers of paint — one anti-rust layer and one black matte exterior layer — providing corrosion resistance and thermal stability for extended large burning tester service. The beautiful appearance and reasonable internal structure of the ToronFT™ VW-1 make it simple and fast to operate while delivering the accurate, UL-evaluated large burning test performance required for VW-1 certification.

TECHNICAL SPECIFICATIONS

VW-1 Cable Flame Tester - ToronFT™ VW-1 Technical Specifications

Parameter	Specification
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Product Name	VW-1 Cable Flame Tester — ToronFT™ VW-1
Test Chamber Volume	>4 m ³
Box Body Area	>2.0 m ²
Box Body Construction	1.2 mm thick electrostatic high-temp. baking paint steel plate; CNC-processed
Interior Paint System	Two layers: anti-rust primer + black matte outer coat
Instrument Composition	Combustion box + control part
Compliance Standards	UL 1581 (VW-1); UL 13; UL 444; UL 1655; CSA FT-1; CSA FT-2

For more information, pricing, or to request a quotation, please contact ToronFT. Specifications are subject to change without prior notice.



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