



TORONTECH



FIRE AND FLAMMABILITY TESTING EQUIPMENT

Fire and Flammability Testing Equipment

Fire and flammability testing is one of the most critical and extensively regulated fields in materials science and product safety. Across building construction, fire protection infrastructure, transportation, electrical systems, personal protective equipment, industrial processing, and consumer products, the fire and flammability performance of materials, components, and assemblies must be rigorously evaluated and certified before products reach the market or are installed in service. The breadth of test standards, product categories, and fire hazard scenarios addressed by the global fire testing industry demands a supplier capable of delivering instruments across the full scope of this discipline.

Torontech's ToronFT™ Fire and Flammability Testing Equipment series is one of the most comprehensive single-source fire testing instrument ranges in the world. Spanning 20 product categories and hundreds of individual apparatus, the ToronFT™ range covers fire protection equipment testing, building and construction material fire performance, transportation material flammability, wire and cable fire testing, lithium battery fire safety, electrical and electronic component flammability, textile and furnishings fire testing, personal protective equipment flame retardancy, industrial specialty fire testing, and full laboratory conditioning and environmental testing infrastructure — all within a single, consistent instrument platform aligned with ISO, EN, BS, IEC, NFPA, UL, ASTM, and equivalent international and national standards.

Whether you are establishing a focused product-specific fire testing capability, expanding an existing laboratory's scope, or equipping a comprehensive multi-category fire testing facility, the ToronFT™ series provides the instruments, expertise, and support infrastructure to build a world-class fire and flammability testing operation.

APPLICATIONS

Applications & Industries

The ToronFT™ Fire and Flammability Testing Equipment series is specified by organisations across every major fire-regulated industry:

- Fire Protection Equipment Manufacturers — fire hose, extinguisher, sprinkler, pump, hydrant, damper, and gaseous suppression system testing
- Building & Construction Product Manufacturers — reaction-to-fire, fire resistance, and passive fire protection material testing for building certification programs
- Transportation OEMs & Tier 1 Suppliers — automotive, railway, and aviation interior material flammability and fire performance testing
- Cable & Wire Manufacturers — fire resistance, flame propagation, smoke density, and halogen acid gas emission testing
- Lithium Battery & Energy Storage Manufacturers — cell, module, and pack fire safety and thermal runaway testing
- Electrical & Electronic Component Manufacturers — glow wire, needle flame, tracking resistance, and UL 94 flammability testing
- Textile, Apparel & Furnishing Manufacturers — fabric, carpet, mattress, and upholstered furniture flammability testing
- PPE & Safety Equipment Manufacturers — flame retardancy, thermal protection, and radiant heat resistance testing
- Industrial Material & Conveyor System Manufacturers — specialty flammability and flame propagation testing for mining and heavy industry
- Third-Party Testing & Certification Laboratories — multi-product, multi-standard fire and flammability testing for global market access certifications
- Government, Regulatory & Standards Bodies — market surveillance, enforcement testing, and test standard development
- Research & University Laboratories — advanced fire science and material fire behaviour research programs

FEATURES

Why Choose the Torontech ToronFT™ Series?

Our Advantage	What That Means for You
The Most Complete ToronFT™ Fire Testing Range	Torontech's ToronFT™ series spans 20 distinct product categories — from fire hose and sprinkler system testing through to lithium battery fire testing, transportation material flammability, and general laboratory conditioning. No other single supplier offers comparable depth and breadth of fire and flammability testing coverage under one consistent instrument platform.
Global Standards Coverage by Design	Every ToronFT™ apparatus is engineered to address specific test methods defined in international and national fire safety standards — including ISO, EN, BS, IEC, NFPA, UL, FM, ASTM, GB, and sector-specific codes for aviation (FAR 25), railway (EN 45545), and mining (ISO 340). Laboratories can pursue multi-standard, multi-market certification programs without sourcing equipment from multiple vendors.
One Supplier, One Support Relationship	By consolidating your fire and flammability testing equipment procurement within the ToronFT™ range, you benefit from a single point of contact for installation, commissioning, operator training, calibration, and aftermarket service — across your entire instrument fleet. This simplifies laboratory management and reduces the administrative burden of managing multiple vendor relationships.
Scalable from Single Instruments to Full Laboratories	The ToronFT™ range is designed to scale with your laboratory's needs. Organisations can procure individual instruments for focused testing programs, build out a category-specific test facility, or configure a comprehensive multi-category fire testing laboratory — with Torontech's applications team providing laboratory layout planning, infrastructure specification, and phased procurement support at every stage.
Precision Engineering & Measurement Confidence	Across all 20 ToronFT™ categories, precision is non-negotiable. High-accuracy sensors, programmable controllers, calibrated measurement systems, and robust construction deliver the repeatable, traceable test data that certification bodies, quality systems, and fire safety regulators require. All instruments are supplied with calibration documentation and supported by Torontech's calibration service program.
Expert Application Knowledge Included	Torontech's application engineers bring deep expertise across fire protection equipment testing, building material fire performance, transportation material flammability, PPE safety, and industrial fire testing. From test method interpretation and specimen preparation guidance to report formatting for certification submissions, this expertise is available to every ToronFT™ customer as part of the standard support relationship.

TECHNICAL SPECIFICATIONS

ToronFT™ Product Category Overview

The ToronFT™ Fire and Flammability Testing Equipment series comprises the following 20 specialised product categories:

No.	Product Category	Scope of Testing
1	Fire Hose Testing Equipment	Hydraulic pressure, bending, wear, hot air aging, extension & torsion, and hose reel sealing, spray, and load resistance testing
2	Fire Extinguisher Testing Equipment	Extinguishing performance (Class A & B), vibration, impact, hydraulic strength, pressure alternating, electrical insulation, air tightness, and spray testing
3	Fire Hose Coupling & Nozzle Testing Equipment	Operating force, torque, hydraulic performance, drop impact, sealing strength, and spray pattern testing for fire couplings and nozzles
4	Fire Sprinkler System Testing Equipment	Water impact, hydraulic seal, moisture freezing, flow coefficient, temperature activation, water distribution, vibration, and full-scale fire extinguishing tests
5	Pump & Hydrant Testing Equipment	Fire pump duty curve, sealing & hydrostatic strength, hydrant hydraulic performance, cabinet stiffness, and large-flow dynamic pressure testing
6	Fire Damper Testing Equipment	Opening/closing reliability, smoke leakage, and full-scale fire resistance testing of dampers, shutters, and building components in vertical furnaces
7	Gas Fire Extinguisher Testing Equipment	Component overpressure, start-up operation, local resistance loss, valve opening pressure, safety relief device, pressure reduction, and hydraulic strength testing
8	Pressure & Valves Testing Equipment	Pressure stabilisation, pressure loss, electric control function, working reliability, stem lifting performance, and voltage withstand testing for fire system valves
9	Fire Retardant Coating Testing Equipment	Large plate, small chamber, and tunnel burning tests; bond strength, steel structure furnace, compressive strength, corrosion, crack resistance, and timber burning tests
10	Fire Building Materials Testing Equipment	Non-flammability, ignitability, flammability, smoke density, cone calorimeter, SBI, heat release rate, fire resistance furnace, and specialist building product tests
11	Fire Tester for Textile & Furnishings	Vertical, horizontal, and 45° burning tests for fabrics, carpets, mattresses, upholstered furniture, curtains, protective textiles, and mask materials

No.	Product Category	Scope of Testing
12	Fire Testing Equipment for Transportation	Automotive interior, railway vehicle, aviation cabin, wire & cable, hose & pipe, and wind tunnel fire and flammability testing for all transport modes
13	Fire Tester for Wire & Cable	Single wire/cable bundle flame propagation, fire resistance, halogen acid gas, smoke density, and corrosivity testing for cables and wiring systems
14	Lithium Battery Fire Testing Equipment	Thermal runaway, overcharge, short circuit, nail penetration, crush, and fire exposure testing for lithium-ion and solid-state battery cells, modules, and packs
15	Gas & Regulator Fire Testing Equipment	Gas regulator fire resistance, gas valve flow and sealing performance, and fire safety device actuation testing for gas supply and LPG system components
16	Fire Testing Equipment for Electrical / Electronic	Glow wire, needle flame, ball pressure, tracking resistance, and UL 94 flammability testing for electrical components, enclosures, and electronic assemblies
17	Fire Testing Equipment for Sealing Material	Compression & bending strength, corrosion resistance, and intumescent expansion performance testing for fireproof sealing and passive fire protection materials
18	Flammability Tester for Safety Equipment	Helmet flame retardancy, insulation smouldering, thermal protection, radiant heat protection, and surface flame spread testing for PPE and safety products
19	Fire Tester for Specialty Testing	Conveyor belt flammability, flame propagation calorimetry, hot air insulation performance, and lateral flame spread testing for industrial and specialty materials
20	Fire and Flammability Testing for General Lab / Environment	Laboratory conditioning chambers, plastic and foam flammability, cable fire resistance, smoke density, halogen acid gas, UV aging, and building hardware endurance testing



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