



FACE MASK FLAME RETARDANT TESTER

Face Mask Flame Retardant Tester ToronFM™ FRT is a specialized instrument designed to assess the flame retardant performance of medical masks. It tests the mask's flammability when exposed to flame at a specific linear speed.

Standard

1. EN 149
2. IS 9473
3. EN 14325

APPLICATIONS

The Torontech ToronFM™ FRT is a specialized instrument for determining the flame retardant properties of face masks and respirators, in full compliance with safety standards like EN 149 and YY 0469. Its primary application is to assess a mask's resistance to ignition and flame spread after a brief exposure to a controlled flame. This is a critical safety test, particularly for masks used in environments where the risk of flash flames or sparks exists, such as in certain medical or industrial settings.

This essential safety test is a mandatory part of certification and quality control for:

- **Medical & Surgical Mask Manufacturing:** As a critical quality control and lot release test to ensure that surgical masks meet the flammability resistance requirements mandated by medical device regulations, ensuring the safety of both patients and healthcare professionals in the operating room.
- **Industrial Respirator Manufacturing:** To certify that respirators intended for use in industries like welding, grinding, or petrochemicals will not readily ignite when exposed to sparks or flame, which is a fundamental requirement for occupational safety.
- **Third-Party & Government Certification:** For regulatory bodies and accredited test labs to independently verify that masks and respirators on the market meet the flammability performance requirements of national and international

safety standards.

- **Textile & Non-Woven R&D:** As a primary tool for developing and validating new flame-retardant materials and treatments for use in Personal Protective Equipment (PPE), providing the quantitative data needed to prove their efficacy and safety.

FEATURES

- The Face Mask fixture consists of a metal human head mold, simulating real-world mask usage.
- The burner features a combustibile gas interface, such as propane (liquefied gas).
- The burner height is adjustable and can be timed and positioned automatically.
- Burning time and flame retardant duration are automatically recorded and displayed digitally.
- The system includes a flame temperature probe and displays the flame temperature.

TECHNICAL SPECIFICATIONS

Model	ToronFM™ FRT
Linear speed of the tip of nose on head model	(60 ±5) mm/s
Flame height	Initial height 40±4mm (adjustable)
Diameter of flame temperature	1.5mm
The temperature of the flame	(800 ± 50) °C at a height of (20 ± 2) mm from the top of the burner
Distance between top of the burner and lowest point of the mask	(20 ± 2) mm
Adjustment range of burner height	30mm
Thickness of the metal mold	2~3mm, flame resistant

Model	ToronFM™ FRT
Timer of burning time and smoldering time	0-99.99 seconds, accuracy: ±0.1 seconds
Gas	Propane gas
Weight	100kg
Voltage	AC220V, 50Hz, 50W (110V is also available)



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