



FLOOR COVERING BURNING TEST CHAMBER

Floor Covering Burning Test Chamber - ToronFT™ TB-F

ToronFT™ TB-F Floor Covering Burning Test Chamber is a dual-method flammability testing system designed to assess the textile burning and flame retardant properties of carpet and floor covering materials when exposed to small ignition sources.

Capable of performing both the hot metal nut method and the methenamine pill method within a single test chamber, the instrument provides laboratories and manufacturers with the flexibility to comply with multiple international standards for floor covering textiles. The chamber accommodates standard carpet samples and supports rigorous evaluation of ignition susceptibility and burning behavior.

APPLICATIONS

Floor Covering Burning Test Chamber - ToronFT™ TB-F Applications

- Flammability testing of carpet and floor covering textiles using small ignition sources
- Evaluation of flame retardant properties for textile floor coverings
- Compliance testing for carpet materials in residential, commercial, and public installations
- Quality assurance testing using both hot nut and methenamine pill test protocols
- Research and development of fire-resistant floor covering systems



Standards

- ASTM E648 – Standard Test Method for Critical Radiant Flux of Floor-Covering Systems Using a Radiant Heat Energy Source
- 16 CFR 1630 – Standard for the Surface Flammability of Carpets and Rugs (FFFA)
- 16 CFR 1631 – Standard for the Surface Flammability of Small Carpets and Rugs (FFFA)
- ISO 11949 – Textile Floor Coverings: Determination of Behaviour to Ignition by a Hot Metal Nut

FEATURES

Floor Covering Burning Test Chamber – ToronFT™ TB-F Key Features

- Dual test capability: hot metal nut method and methenamine pill method in a single chamber
- Hot nut method: stainless steel nut pre-heated to 900°C in a muffle furnace
- 30-second nut contact time with subsequent assessment of textile burning spread
- Methenamine pill method: standard pill ignited and burned to completion on specimen
- Compatible with standard carpet test sample sizes and clamping ring configurations
- Suitable for a broad range of floor covering textile types and constructions

THEORY & METHOD

Theory and Method

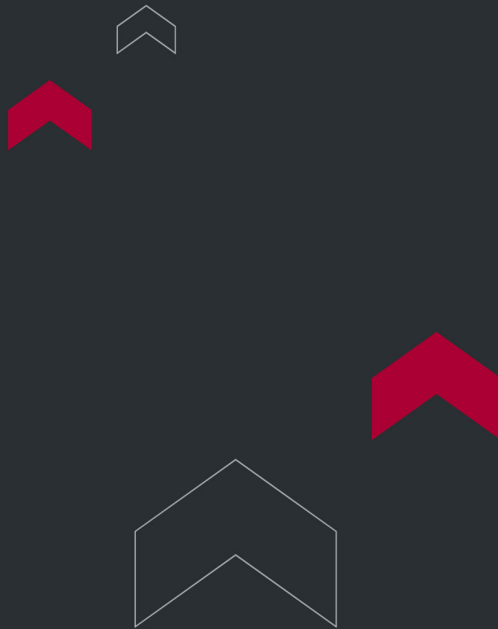
The ToronFT™ TB-F utilizes two distinct test methods within its single chamber design. In the hot metal nut method, a stainless steel nut is pre-heated to 900°C in a muffle furnace. The nut is then placed at the center of the clamping ring on the carpet specimen using heat-resistant stacking pliers.

After 30 seconds of contact, the nut is removed and the specimen is assessed for ignition spread and burning extent. In the methenamine pill method, a standard methenamine tablet is placed at the center of the specimen within the clamping ring, ignited, and allowed to burn completely. The burning effect and extent of damage to the textile are then measured and recorded. Both methods provide critical data on the susceptibility of floor covering textiles to small ignition sources.

TECHNICAL SPECIFICATIONS

Floor Covering Burning Test Chamber - ToronFT™ TB-F Technical Specifications

Parameter	Specification
Test Methods	Hot metal nut method; Methenamine pill method
Nut Preheating Temperature	900°C (muffle furnace)
Nut Contact Duration	30 seconds
Applicable Materials	Carpets and textile floor coverings (all types)
Clamping Ring	Standard size for specimen positioning
Ignition Source (Pill Method)	Standard methenamine tablet



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