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# CONVEYOR BELT VERTICAL BURNING TEST CHAMBER

# Conveyor Belt Vertical Burning Test Chamber – ToronFT™ CB-FFP

ToronFT™ CB-FFP Conveyor Belt Vertical Burning Test Chamber is a specialized laboratory instrument designed for determining the flammability and flame propagation characteristics of conveyor belts under standardized test conditions. Conveyor belt flammability is a critical safety concern in underground mining, material handling, and industrial production environments — where a conveyor belt fire can rapidly propagate along the belt length, leading to catastrophic consequences.

The ToronFT™ CB-FFP provides precise temperature control up to a maximum flame temperature of 1000°C, an integrated temperature verification device, and a programmable burning timing and flame propagation timing system for accurate and reproducible conveyor belt flammability and flame propagation testing. It complies with AS 1334.10, the primary international standard for conveyor belt flammability and flame propagation testing.

## APPLICATIONS

# Conveyor Belt Vertical Burning Test Chamber – ToronFT™ CB-FFP Applications

The ToronFT™ CB-FFP is applicable for flammability and flame propagation testing of:

- Rubber conveyor belts for underground mining applications requiring flammability and flame propagation certification
- PVC and multi-ply conveyor belts for industrial material handling systems requiring flammability compliance
- Steel cord conveyor belts and fabric-reinforced conveyor belts for flammability and flame propagation characterization
- Fire-retardant conveyor belt compounds and constructions during product development and flammability optimization
- Quality assurance and production batch testing of conveyor belts for flammability and flame propagation consistency

- Type testing and certification of conveyor belts for flammability and flame propagation compliance with AS 1334.10 and equivalent international mining and industrial safety standards

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ToronFT™ CB-FFP - Conveyor Belt Vertical Burning Test Chamber
FLAME TIME (SEC)
IGNITION
TIMER
START
POWER
STOP
POWER

## Standards

The ToronFT™ CB-FFP is designed to comply with the following international standards for conveyor belt flammability and flame propagation testing:

- AS 1334.10: Methods of testing conveyor belting: Determination of the flammability and flame propagation characteristics of conveyor belting
- ISO 340: Conveyor belts: Laboratory scale flammability characteristics — Requirements and test method
- EN ISO 340: Conveyor belts: Laboratory scale flammability characteristics — Requirements and test method
- MSHA 30 CFR Part 18: Equipment approval requirements for underground coal mines (conveyor belt flammability)

## FEATURES

## Conveyor Belt Vertical Burning Test Chamber – ToronFT™ CB-FFP Key Features

- Maximum flame temperature of 1000°C provides the high-intensity, standardized ignition source required for accurate conveyor belt flammability and flame propagation testing per AS 1334.10 and ISO 340
- Integrated temperature verification device confirms that the flame reaches the required 1000°C test temperature before and during conveyor belt flammability exposure — ensuring test validity and result traceability
- Temperature error controlled within ±50°C throughout the test sequence ensures consistent and reproducible flammability and flame propagation test conditions for all conveyor belt specimen types
- Gas source of 295% internal alkane gas delivers a stable, calibrated flame for repeatable conveyor belt flammability and flame propagation testing
- Arbitrarily programmable burning timing from 0 to 99.99 s/m enables precise control of flame application duration for compliance with different conveyor belt flammability test protocol requirements

- Arbitrarily programmable flame propagation timing from 0 to 99.99 s/m enables precise measurement and recording of post-ignition flammability and flame propagation duration beyond the ignition zone
- Complies with AS 1334.10 and ISO 340, providing internationally recognized conveyor belt flammability and flame propagation test results accepted by mining safety authorities and certification bodies in North America and globally

## THEORY & METHOD

# Theory and Method

Conveyor belt flammability and flame propagation testing evaluates whether a conveyor belt specimen can sustain combustion and propagate a flame beyond a defined distance from the ignition source when exposed to a standardized gas flame at a specified temperature. Conveyor belts that self-extinguish promptly and do not propagate flame beyond the specified limit are classified as meeting the flammability and flame propagation requirements of the applicable standard.

In the ToronFT™ CB-FFP, the conveyor belt specimen is positioned in the test chamber and exposed to the calibrated gas flame source at a maximum temperature of 1000°C. The gas source is 295% internal alkane gas, providing a controlled, reproducible flame for flammability and flame propagation testing. The temperature verification device confirms that the flame reaches and maintains the required 1000°C test temperature before and during specimen exposure — ensuring test validity. Burning timing (0 to 99.99 s/m, arbitrarily settable) controls the flame application duration, and flame propagation timing (0 to 99.99 s/m) records the duration of any sustained flammability and flame propagation after ignition source removal. Temperature error is maintained within ±50°C to ensure consistent and compliant test conditions throughout all flammability and flame propagation test sequences

## TECHNICAL SPECIFICATIONS

# Conveyor Belt Vertical Burning Test Chamber – ToronFT™ CB-FFP Technical Specifications

| Parameter | Specification |
|---|---|
| Product Name | Conveyor Belt Vertical Burning Test Chamber — ToronFT™ CB-FFP |
| Maximum Flame Temperature | 1000°C |
| Temperature Verification Device | Integrated |
| Temperature Error | ±50°C |
| Gas Source | 295% internal alkane gas |
| Burning Timing Range | 0 to 99.99 s/m (arbitrarily settable) |
| Flame Propagation Timing Range | 0 to 99.99 s/m (arbitrarily settable) |
| Compliance Standards | AS 1334.10; ISO 340; EN ISO 340 |

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

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