



OPTICAL CABLE FLAMMABILITY TESTER - FLAME PROPAGATION TESTER FOR A SINGLE INSULATED CABLE

IEC 60332-1-1, IEC 60332-3-10/21/22/24/25

Optical Cable Flammability Tester - Flame Propagation Tester for a Single Insulated Cable TTOFTFB-2000 is designed to evaluate the flame resistance of optical cables.

APPLICATIONS

Test Sample

The test sample must consist of multiple cable segments from the same production batch, each at least 3.5 meters long. The total number of segments should ensure a nominal combined volume of 7 liters per meter of non-metallic material. Before testing, condition the cable segments at a temperature of $20 \pm 10^{\circ}\text{C}$ for a minimum of 16 hours. The segments must be dry.

Determination of the Number of Test Pieces

To calculate the required number of test pieces, determine the volume per meter of non-metallic material in a single test piece. Carefully cut a cable segment at least 0.3 meters long, ensuring the cuts are perpendicular to the cable axis for accurate length measurements.

Flame Application Time

Apply the test flame for 40 minutes, then extinguish it. Maintain the airflow in the test chamber until the cable stops burning or glowing, or for a maximum of 1 hour. After this period, extinguish any remaining burning or glowing cable.

Evaluation of Test Results

After all cable burning or glowing has stopped or been extinguished, wipe the test sample clean. Disregard soot if the original surface remains undamaged after cleaning. Ignore any softening or deformation of the non-metallic material. Measure flame spread as the length of the damaged area in meters, accurate to two decimal places, from the bottom edge of the burner to the point where charring begins. To identify the onset of char, press a sharp object (such as a knife blade) against the cable surface. The transition from a resilient to a brittle, crumbling surface indicates the onset of char.

Performance Requirements

Performance requirements for a specific type or class of wire or cable should ideally be specified in the respective cable standard. If no requirements are provided, refer to the recommended performance criteria outlined in Annex B.

TECHNICAL SPECIFICATIONS

Model	TTOFTFB-2000
Chamber Size	W1000 x D2000 x H4000mm
Inlet Air Flow Rate	5000 +/- 500L/min
Fuel Type	Propane
Combustion-supporting gas	Compressed Air > 1MPa
Ignition	Automatic
Exhaust Fumes Filtering Tank	Filter exhaust fumes throughout the test
Testing chamber	Schematic for the chamber to be manufactured locally
Voltage	AC380V 50Hz 1kW



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