



IPC-TM-650 TEST METHODS MANUAL

Number 2.3.29	
Subject Flammability, Flexible Flat Cable	
Date 11/88	Revision
Originating Task Group N/A	

1 Scope This method describes the test procedure required to determine if flexible flat cable is flame retardant.

2 Applicable Documents None

3 Test Sample

3.1 The number of production samples shall be determined by the manufacturer and/or user and shall be one production sample as a minimum.

3.2 The test sample shall be 6.1 m minimum. The 6.1 m sample shall be cut into a quantity of 12 specimens, each 508 mm long.

4 Apparatus

4.1 Test chamber of sheet metal 610 mm with 305 mm sides, open at the top and front to permit a flow of draft-free air, sufficient for complete combustion, and provided with the means for supporting the test specimen in a position that is a 45° angle from the horizontal (see Figure 1)

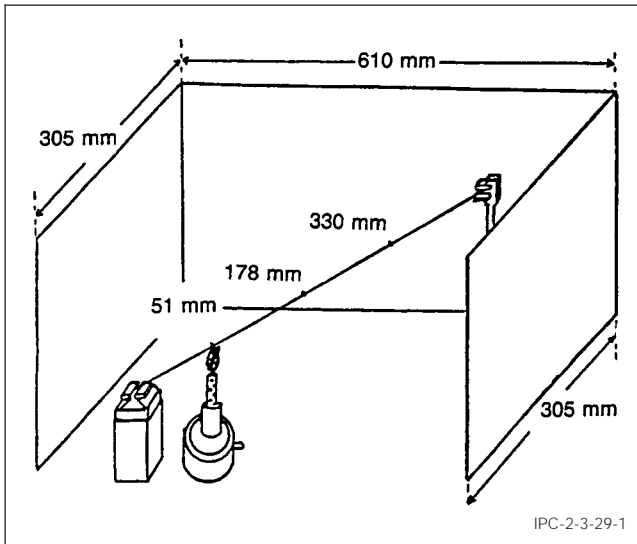


Figure 1 Flame Applied to Underside of Cable

4.2 Burner (Terrill, Bunsen, etc.) having a bore of 9.5 mm and a length of 102 mm above the primary air inlets; and a supply of ordinary illuminating gas at normal pressure

4.3 Watch or other device capable of measuring the time in seconds

4.4 The test shall be made in a room generally free from drafts of air, but a ventilated hood may be used if air currents do not affect the flame.

5 Procedure

5.1 The test specimens of 3.2 shall be tested as stated in 5.1.1 through 5.1.4.

5.1.1 Hold a single, full-width strip of cable at a 45° angle from the horizontal, with the flat side down, and the flame applied to the underside of the cable (see Figure 1).

5.1.2 Hold a single, full-width specimen of cable held at a 45° angle from the horizontal, with the edge down, and the flame applied to the lower edge of the cable (see Figure 2).

5.1.3 Tape five full-width specimens together and otherwise tested as in 5.1.1 (see Figure 3).

5.1.4 Tape five full-width specimens together and otherwise tested as in 5.1.2 (see Figure 4).

5.2 During this test, as well as after the application of the flame, observations shall be made to determine the rate of burning of the sample within the marked 152 mm length and whether or not any burning particles fell from the sample.

6 Notes This test procedure was extracted from Underwriters Laboratories Factory Inspection Procedure, Subject 758, Section G, Page 31, as modified by Underwriters Laboratories, Inc., for flexible flat conductor cable.

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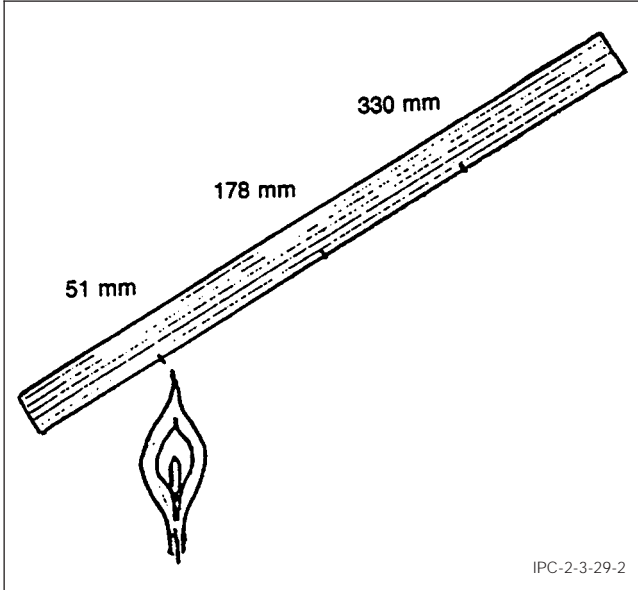


Figure 2 Flame Applied to Edge of Cable

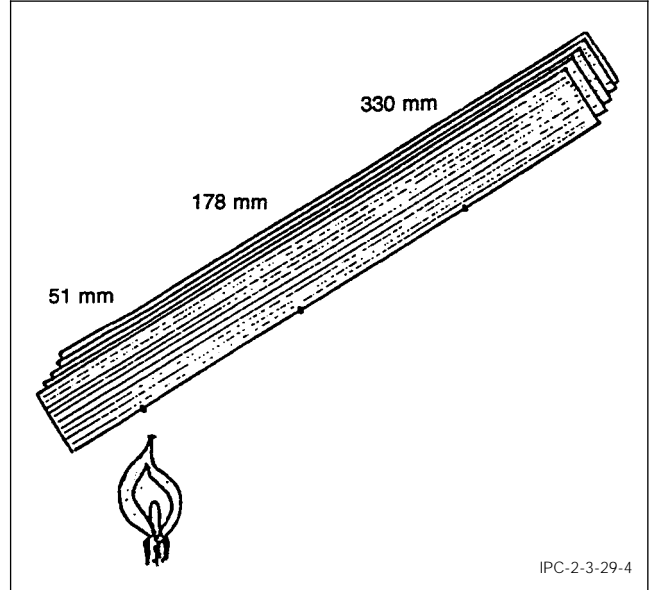


Figure 4 Underside of Five Cables

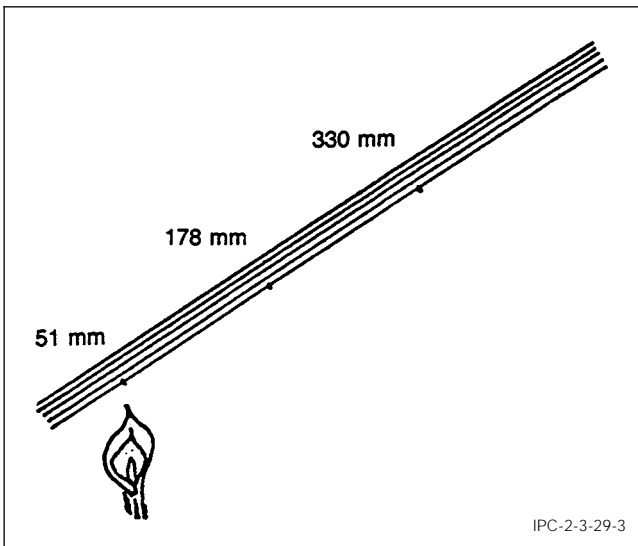


Figure 3 Edge of Five Cables