

Five common fire tests – often confused:

ASTM E136 - 09 Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750°C
ASTM E136

This test will tell you if the material is classed non-combustible or combustible. It is based on placing a sample in a small bench top furnace and recording the temperature rise if the material can burn. If the material is not combustible, the temperature won't rise.

ASTM E119 - 08a Standard Test Methods for Fire Tests of Building Construction and Materials

This is the tested used to arrive at the hourly rating based on a time vs temperature fire exposure.

ASTM E84 - 09a Standard Test Method for Surface Burning Characteristics of Building Materials

This is a surface burning test done in a ten-foot long tunnel. It is meant to tell you if the lining materials in rooms will contribute to a rapid fire growth.

NFPA 701 Standard Methods of Fire Tests for Flame Propagation of Textiles and Films

This test is to prove that the textile can resist an initial ignition source of a small flame. Thinner materials with density of less than 21 oz per yard are tested by Method 1, using a sample of about 6 by 16 inches. Test Method 2 is used for heavier materials using a sample about 24 by 48 inches. The test method also has procedures for testing the material after dry cleaning, laundering and water leaching.

NFPA 705 Recommended Practice for a Field Flame Test for Textiles and Films

Just holding a match to a ½ by 4 inch strip for 12 seconds to get an indication of what's hanging.