

Fire test according to IMO regulations

Fire test for vertically supported textiles and films according to IMO regulations

International Maritime Organization (IMO) 2010 FTP Code Part 7

The fire tests for curtains, draperies and other vertically supported textiles for which a fire resistance class is required are conducted according to the "International Code for Application of Fire Test Procedures (FTPC)":

 IMO 2010 FTP Code Part 7, IMO-Resolution MSC.307(88)

Test procedure

At this test procedure the mode of flame application is evaluated by pre-tests.

The flame is applied to the surface of the material for 5 respectively 15 seconds. If no sustained ignition occurs the flame is applied to the edge of the material for 5 respectively 15 seconds.

As the mode of flame application delivering the worst test results is determined, 5 specimens in warp direction and 5 specimens in weft direction are tested with this test setup.

To investigate if burning drops of the specimen are capable of igniting combustible materials on the base of the test apparatus, cotton wool with a thickness of 10 mm shall be laid over the base plate.

Fire test curtain



Flame application to the surface of a curtain



Setup for flame application to the edge of a curtain



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Classification

Products which show any of the following characteristics shall be considered unsuitable for use as curtains, draperies or free-hanging fabric:

- An after-flame time greater than 5 seconds for any of the specimens.
- Burn through to any edge of any of the specimens.
- Ignition of cotton wool below the specimen.
- An average char length in excess of 150 mm observed in any of the batches of five specimens.
- Occurrence of a surface flash propagating more than 100 mm from the point of ignition with or without charring of the base fabric.

Sampling

Specimens must be representative for the product to be tested. For this reason sample material is taken from current manufacturing or from stock.

The sampling must be recorded in a sampling protocol to ensure the traceability of the sample material. The protocol must give information on name and function of sampler (QM), date, place and type of sampling etc.

Alternatively the sampling can be conducted by an expert of the Test Laboratory for Fire Protection of DMT GmbH & Co. KG.

Specimens

For fire tests according to IMO 2010 FTPC Part 7 specimens with the following dimensions are required:

220 mm x 170 mm x product thickness

Required documents

The following documentation is required prior to the commencement of testing:

- Written order including invoice address
- Specimens
- Technical specifications data sheet (incl. bulk density, mass per unit area, material thickness, manufacturer, trade name etc.)
- Material safety data sheet
- Detailed description of product and composition of material
- Sampling protocol (except for exploratory testing) and coating protocol
- Delivery note incl. specification of type of testing and exact denotation of samples

Do you require further information?

Our team is eager to offer you advice and support. Contact us!

DMT GmbH & Co. KG

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