

Fire tests for upholstered furniture according to IMO-Regulations

International Maritime Organization (IMO) 2010 FTP Code Part 8

On board of ships seats, sofas, armchairs etc. have to have qualities of resistance against propagation of flame.

The test procedure for upholstered furniture and the classification of the tested material is conducted according to the „International Code for Application of Fire Test Procedures (FTPC)“:

- IMO 2010 FTP Code Part 8, IMO-Resolution MSC.307(88)

Test procedure

It is tested whether a progressive smouldering or open flames occur at covers and filling.

A smouldering cigarette is used as smouldering ignition source. A lighted match or a flickering candle is simulated by a propane gas flame. The ignition source is placed at the joint between the seat and back of the specimen.

Classification

Covers and fillings of seat and lying surfaces are recognized as resistant against propagation of flame if:

- no progressive smouldering and
- no open flames can be observed.

Test setup upholstered furniture: smouldering cigarette test



Fire test upholstered furniture: propane flame test



Test result upholstered furniture



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 FTP Code Part 8 specimens with the following dimensions are required:

- Fabric (cover)
 - 1 x specimen size 3 m² or
 - 4 x specimens 800 x 650 mm
- Fabric (interliner)
 - 1 x specimen size 3 m² or
 - 4 x specimens 800 x 650 mm
- Filling
 - 4 x filling (back) 450 x 300 x 75 mm
 - 4 x filling (seat) 450 x 150 x 75 mm

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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