

Fire tests for bedding components according to IMO-Regulations

International Maritime Organization (IMO) 2010 FTP Code Part 9

On board of ships only mattresses, blankets and pillows may be used which have qualities of resistance to the ignition and propagation of flame - as well as bedspreads and quilts. The test procedure for bedding components and the classification of the tested material is conducted according to with the „International Code for Application of Fire Test Procedures (FTPC)”:

- IMO 2010 FTP Code Part 9, IMO-Resolution MSC.307(88)

Test method

It is tested whether a progressive smouldering or open flames occur. A smouldering cigarette covered with a cotton wool pad is used as smouldering ignition source, which shall simulate falling asleep with a burning cigarette. A lighted match or a flickering candle is simulated by a propane gas flame which is placed on top of the specimen.

Classification

Bedding components are classified as not readily ignitable if they:

- withstand the fire test for 60 minutes and
- show no progressive smouldering ignition or flaming ignition.

Test preparation: smouldering cigarette test



Smouldering cigarette test at a mattress



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 9 specimens with the following dimensions are required:

- Mattresses without removable covers:
4 x mattresses 450 x 350 mm at nominal thickness
- Mattresses with removable covers:
8 x mattresses 450 x 350 mm at nominal thickness and
1 x mattress cover 1 m²
- Pillows:
4 x pillows in full size
- Blankets
4 x blankets 450 x 350 mm or
1 x blanket 2 m²
- Quilts and bedspreads
4 x quilt/bedspread 450 x 350 mm or
1 x quilt/bedspread 2 m²

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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!