



Deck Coverings

IMO FTP Code Annex 1, Part 6 - Test for primary deck coverings

This information sheet describes the general principles for determining the flame-spread characteristics and heat release values of materials intended for use as primary deck coverings.

Before the test

Though general rules have been adopted by IMO, the interpretation of these rules may differ between national authorities and classification societies. Therefore it is important to determine which type approvals are to be obtained and to consult the relevant bodies. DBI has extensive experience in co-operating with national authorities and classification societies and can offer guidance about what to do, so that the process of testing will follow the proper requirements

Information Sheets: 'SHIP WHEEL-MARKING AND TYPE APPROVAL OF MARINE PRODUCTS' and 'TESTING AND INSPECTION FOR USCG'

General

The flame-spread test is conducted in accordance with IMO Resolution A.687(17) (adopted on 6 November 1991).

The test equipment

The flame-spread apparatus consists of a natural gas- powered radiant panel in a vertical position, facing a specimen holder containing the test material, which is set at an angle of 15 °.

This means that the surface of the material is exposed to an irradiance of 50.5 kW/m² at one end, down to 1.5 kW/m² in the other end.

A pilot flame placed in the "hot" end will ignite the product (if possible). The heat release from the material is recorded in a fume-stack situated above the test-specimen.

Verification of materials

The applicant shall provide a complete material specification to DBI before a test can commence.

Test specimens

The applicant shall provide DBI with at least 6 test specimens, each with the dimensions 795 x 153 mm and a maximum thickness of 50 mm.

Deck coverings should be applied on a 3 mm steel plate in the amount which is used in practise.

Test procedure

Three to five specimens will be tested under the conditions described above.

The test proceeds until one of the following is applicable:

1. The specimen fails to ignite after a 10 min. exposure.
2. 3 min. has passed since all flaming from the specimen ceased.
3. Flaming reaches the end of the specimen.
(in that case the material will not pass the criteria of the classification)

Additionally the behaviour of the fire/material will be reported.

Test result

The result - the average of three tests - is compared to the criteria defined below:

Surface flammability criteria

Primary deck coverings			
CFE (kW/m ²)	Q _{sb} (MJ/m ²)	Q _t (MJ)	Q _p (kW)
≥ 7.0	≥ 0.25	≤ 1.5	≤ 10.0

CFE : Critical flux at extinguishment

Q_{sb} : Heat for sustained burning

Q_t : Total heat release

Q_p : Peak heat release rate

Test report

The test report will be written in English. It will contain all necessary information about the test specimens, test results and classification.

**For further information
you are welcome to contact**



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