High-Speed Craft, Materials

IMO FTP Code Annex 1, Part 10
- Test of fire-restricting materials for high-speed craft

This information sheet describes the general principles of tests to determine whether surface materials on bulkheads, wall and ceiling linings (including their supporting structure, furniture and other structural or interior components) are fire restricting materials.

General

a) For surface materials on bulkheads, wall and ceiling linings including their supporting structure the tests are performed according to ISO 9705 – the Room/corner test - and evaluated in accordance with Resolution SC.90(71). Bulkhead, wall and ceiling linings are tested in their end-use configuration, including any surface finish materials.

b) For materials used for furniture and other components the tests are performed according to ISO 5660 and evaluated in accordance with Resolution MSC.90(71). This does not include vertically supported textiles and films, upholstery, or bedding which are to be tested according to the IMO FTP Code Annex 1, Parts 7, 8 or 9, respectively.

Test equipment

The test equipment for ISO 9705 (Fire Tests – full scale room test for surface products) consists of a room having the dimensions (l x b x h) 3.6 x 2.4 x 2.4 m, with a doorway at one end with dimensions 0.8 x 2.0 m. The material to be tested is mounted on the ceiling and the walls - except the wall with the doorway. The ignition source is a square propane burner (dimensions 0.17 x 0.17 m) placed in the corner opposite the doorway. At DBI toxic gasses, as per IMO FTP Code Annex 1, Part 2, can be measured in combination with ISO 9705.

The test equipment for ISO 5660 (Fire tests – Reaction to fire – Rate of heat release from building products) consists of a cone-shaped electric heater, a load cell, an exhaust gas system and O_2, CO and CO_2 analysers.

The test conditions are given in IMO Resolution MSC.90(71).

Test specimens

For ISO 9705 DBI has to be contacted before delivery.

The dimensions of the test specimens required for ISO 5660 are 100 x 100 mm, with a maximum thickness of 50 mm. Three specimens have to be tested.

Test results

a) For surface materials on bulkheads, wall and ceiling linings including their supporting structure (ISO 9705) the results are given as average heat release rate, maximum heat release rate, time average of smoke production, maximum smoke production, flame spread and whether flaming drops occur.

b) For materials used for furniture and other components (ISO 5660) the results are given as time to ignition, $HHR_{30,max}$, total heat release and time average smoke production 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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