RESOLUTION MSC.40(64)
adopted on 5 December 1994
STANDARD FOR QUALIFYING MARINE MATERIALS FOR HIGH SPEED CRAFT AS FIRE-RESTRICTING MATERIALS

**ANNEX 4**

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## STANDARD FOR QUALIFYING MARINE MATERIALS FOR HIGH SPEED CRAFT AS FIRE-RESTRICTING MATERIALS

THE MARITIME SAFETY COMMITTEE,

RECALLING Article 28(b) of the Convention on the International Maritime Organization concerning the functions of the Committee,

RECALLING ALSO that paragraph 7.2.2 of the International Code of Safety for High Speed Craft requires the development of standards for fire-restricting materials,

TAKING INTO ACCOUNT the ISO standard 9705 "Fire tests - Full-scale room test for surface products",

1. ADOPTS the Standard for Qualifying Marine Materials for High Speed Craft as Fire-Restricting Materials, set out in the Annex to the present resolution;

2. INVITES Governments to apply the Standard to ensure compliance with the criteria specified therein;

3. AGREES to continue work on this subject with a view to developing corresponding criteria for classification based on ISO standard 5660.

ANNEX

# STANDARD FOR QUALIFYING MARINE MATERIALS FOR HIGH SPEED CRAFT AS FIRE-RESTRICTING MATERIALS

## 1 SCOPE AND FIELD OF APPLICATION

1.1 This standard specifies a procedure to be used in assessing materials as meeting the requirements for "fire-restricting materials" as laid down in the International Code of Safety for High Speed Craft.

1.2 "Fire-restricting materials" are defined in 7.2.2 of the Code.

1.3 The standards for compliance are applicable to surface materials on bulkheads, wall and ceiling linings including their supporting structure as considered necessary as stated in 7.2.3 of the Code.

1.4 Fire-restricting materials used for furniture and other components should be tested to ISO 5660.

1.5 In the case of combustible insulation materials that are protected by metallic skins or identifiable as a separate item, the insulation should be tested without the surface protection.

## 2 TEST PROCEDURE

Tests should be performed according to the standard ISO 9705, the Room/Corner Test. This standard gives alternatives for choice of ignition source and sample mounting technique. For the purpose of testing products to be qualified as "fire-restricting materials", the following should apply:

.1 Ignition source: Standard ignition source according to annex A in ISO 9705, i.e. 100 kW heat output for 10 min and thereafter 300 kW heat output for another 10 min. Total testing time is 20 min; and

.2 Specimen mounting: Standard specimen configuration according to annex G in ISO 9705, i.e. the product is mounted both on walls and ceiling of the test room. The product should be tested complying to end use conditions.

## 3 CALCULATION OF THE PARAMETERS CALLED FOR IN THE CRITERIA

3.1 The maximum values of smoke production rate at the start and the end of the test should be calculated as follows: For the first 30 s of testing, use also values prior to ignition of the ignition source, i.e. zero rate of smoke production, when calculating average. For the last 30 s of testing, use the measured value at 20 min, assign that to another 30 s up to 20 min and 30 s and calculate the average.

3.2 The maximum heat release rate (HRR) should be calculated at the start and the end of the test using the same principles as for averaging the smoke production rate.

3.3 The time averages of smoke production rate and HRR should be calculated using actual measured values that are not already averaged as described above.

## 4 CRITERIA FOR QUALIFYING PRODUCTS AS "FIRE-RESTRICTING MATERIALS"

A surface material or lining is considered to be a "fire-restricting material" if during testing time of 20 min according to the standard ISO 9705 as qualified in paragraph 2 of this annex, the following six criteria are fulfilled:

.1 the time average of HRR excluding the HRR from the ignition source does not exceed 100 kW;

.2 the maximum HRR excluding the HRR from the ignition source does not exceed 500 kW averaged over any 30 s period of time during the test;

.3 the time average of the smoke production rate does not exceed 1.4 $m^2/s$;

.4 the maximum value of the smoke production rate does not exceed 8.3 $m^2/s$ averaged over any period of 60 s during the test;

.5 flame spread must not reach any further down the walls of the test room than 0.5 m from the floor excluding the area which is within 1.2 m from the corner where the ignition source is located; and

.6 no flaming drops or debris of the test sample may reach the floor of the test room outside the area which is within 1.2 m from the corner where the ignition source is located.

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