# TECHNICAL REPORT

# **CEN/TR 15985**

# RAPPORT TECHNIQUE

# TECHNISCHER BERICHT

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#### **English Version**

# Thermal insulating products - Factory made products of expanded polystyrene (EPS) - Voluntary certification of the raw material

Produits isolants - Produits manufacturés en polystyrène expansé (EPS) - Certification volontaire du matériau de base

Wärmedämmstoffe - Werkmäßig hergestellte Produkte aus expandiertem Polystyrol (EPS) - Freiwillige Zertifizierung des Ausgangsstoffes

This Technical Report was approved by CEN on 7 December 2009. It has been drawn up by the Technical Committee CEN/TC 88.

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# CEN/TR 15985:2010 (E)

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# **Foreword**

This document (CEN/TR 15985:2010) has been prepared by Technical Committee CEN/TC 88 "Thermal insulating materials and products", the secretariat of which is held by DIN.

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# Introduction

EN 13163 contains an option in Annex B, Table B.2 to change the frequency for the reaction to fire test according to EN ISO 11925-2 from once per day to once per week. A reduction of the frequency in the FPC is possible according to note to table h of Table B.2, if a certified raw material has been used.

Since rules on how to certify EPS raw material are still missing this option could not be chosen yet. That is why the following rules have been developed and issued by TC 88. These rules may be applied by the raw DE 2N 13 material suppliers and the involved bodies to certify the raw materials until the following text has been incorporated in the next revision of EN 13163:2008.

### 1 Scope

It is essential that EPS products with a reaction to fire performance better than Euroclass F be manufactured from raw materials with a chemical composition, which is under the control of the raw material producer.

This Technical Report specifies the conditions allowing reduction of the FPC frequency for testing the reaction to fire of specimens made from flame retardant EPS raw material. The preconditions are that products are manufactured solely from a specified, certified raw material, within defined density limits, and produced in the way specified by the raw material supplier.

The frequency of testing the final product can be reduced in accordance with EN 13163:2008, Annex B, Table B.2 footnote to table h. It is essential that the reaction to fire performance of the raw material be labelled according to 9.2 in the certificate from an approved body (see EN 13172:2008, 5.3.3 and Annex A).

The certification of the raw material relates only to products for which the reaction to fire Euroclass E according to EN 13501-1 is being claimed. The manufacturer of the EPS boards / products continues to be responsible for the FPC of the EPS boards / products.

This Technical Report is in accordance with the general rules of EN 13172.

#### 2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 1602, Thermal insulating products for building applications — Determination of the apparent density

EN 13163:2008, Thermal insulation products for buildings — Factory made products of expanded polystyrene (EPS) — Specification

EN 13172:2008, Thermal insulating products — Evaluation of conformity

EN 13501-1, Fire classification of construction products and building elements — Part 1: Classification using data from reaction to fire tests

EN ISO 11925-2, Reaction to fire tests — Ignitability of building products subjected to direct impingement of flame — Part 2: Single-flame source test (ISO 11925-2:2002)

#### 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

#### 3.1

#### EPS raw material with flame retardant

non-expanded polystyrene beads containing additives such as a flame retardant treatment and a blowing agent

#### 3.2

#### **EPS** test specimen

EPS foam in a finished form with its final product properties (without facing)

NOTE ITT = Initial Type Test.