



Revision index	Date of implementation
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# Product Guideline No.5

*Factory-made phenolic foam products*

**ASSOCIATION POUR LA CERTIFICATION DES MATERIAUX ISOLANTS**

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**CSTB - LNE**



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## **1 Purpose**

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This Product Guideline supplements the measures in the General Guidelines.

This Product Guideline concerns panels of phenolic foam, in accordance with harmonised European standard NF EN 13166.

## **2 Additional elements of the certificate application technical file**

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The technical file defined in paragraph 2.2 of the General Guidelines does not require any additional elements.

## **3 Characteristics which can be certified**

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The characteristics which can be certified are the characteristics listed in paragraph 4 of standard NF EN 13166, supplemented by the following characteristics:

- Service compression strength, normal service deformation
- Class of insulating underlayers beneath screed or floating slab and under tiles
- Emissivity
- Specific heat capacity

## **4 Methods of determination of the certified characteristics by the pilot laboratories**

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The test methods applied by the pilot laboratory for each of the characteristics are defined in paragraph 5 of standard NF EN 13166, supplemented by the following measures.

### **4.1 Thermal conductivity**

The measures of paragraph 1.1 of Technical Specification No.1 apply.

### **4.2 Thermal resistance**

Certified thermal resistance is defined according to the procedures in Technical Specification No.2.



### **4.3 Reaction to fire**

The measures in Technical Specification No.3 apply.

### **4.4 Service compression strength, normal service deformation**

The measures in Technical Specification No.5 apply.

### **4.5 Class of insulating underlayers beneath screed or floating slab and under tiles**

If the class of insulating underlayers beneath screed or floating slab and under tiles defined in the DTU guideline NF DTU 52.10 P1-2 is certified, the procedures in Technical Specification No.6 apply.

### **4.6 Emissivity**

If the product has a surface coating for which the emissivity is certified, the procedures in Technical Specification No.7 apply.

### **4.7 Specific heat capacity**

The measures in Technical Specification No.10 apply.

## **5 Factory production control**

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Production control in the production unit satisfies the requirements of appendix B of European standard NF EN 13166.

In addition to these measures, for the following certified characteristics for the purposes of these regulations and described in detail in the various Technical Specifications, the procedures (methods and minimum test frequencies) provided for in this Technical Specification apply:

- Reaction to fire
- Service compression strength and normal service deformation
- Class of insulating underlayers beneath screed or floating slab and under tiles
- Emissivity
- Specific heat capacity

## **6 Tests performed during follow-up**

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For characteristics requiring monitoring, random tests are conducted at least once a year according to the table below when relevant to the product in question.



The tests are conducted in accordance with the measures in European standard NF EN 13166, supplemented if applicable by the procedures described in the Technical Specifications corresponding to the characteristics tested.

<b>Characteristics</b> (NF EN 13166)	<b>Test methods</b>	<b>Place of performance of the tests</b>
Thermal resistance – Thermal conductivity	NF EN 12667 NF EN 12939	Pilot laboratory
Length and width	NF EN 822	Production unit and pilot laboratory
Thickness	NF EN 823 or NF EN 12431	Production unit and pilot laboratory
Squaring	NF EN 824	Production unit
Flatness	NF EN 825	Production unit
Reaction to fire <sup>1</sup>	NF EN 13501-1	Pilot laboratory
<b>Other characteristics or criteria</b>	<b>Test methods</b>	<b>Place of performance of the tests</b>
Emissivity	Technical Specification No.7	Pilot laboratory
Density	NF EN 1602	Pilot laboratory
Service resistance ( $R_{CS}$ )	Technical Specification No.5	Production unit and if not compliant, at the pilot laboratory

The certifying body may also perform verification tests to verify other characteristics not listed in the table below, in particular if there is any doubt as to the compliance of the certified values.

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<sup>1</sup> The reaction to fire classification is monitored by conducting random tests once every two years.



Random testing is performed for reaction to fire in the case of products coming under conformity certificate system 1 for CE marking, in the case of the key-mark or at the manufacturer's request. In addition, for the follow-up tests, the following measures apply: one SBI test and one ignitability test on the worst case according to the initial type testing.

## **7 Certificate maintenance rules**

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The certificate maintenance rules are defined in paragraph 4 of the General Guidelines.

Based on the results of the tests performed by the pilot body, product compliance is verified:

- For the dimensional characteristics according to the requirements of paragraph 4 of European standard NF EN 13166;
- For thermal performance according to paragraphs 2.1 or 2.2 of Technical Specification E;
- For the following characteristics certified under these regulations and described in detail in the various Technical Specifications, according to the conditions stipulated in these Technical Specifications:
  - Reaction to fire
  - Service compression strength and normal service deformation
  - Emissivity

## **8 Marking Rules**

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The marking rules laid out in Technical Specification D apply.

In particular, the information label complies with the measures in paragraph 3.1.1 of this Technical Specification.