



Brussels, 22<sup>nd</sup> March 2011

Doc.: 13/2011 EN

***COMMITTEE ON STANDARDS AND TECHNICAL REGULATIONS***

***(98/34 COMMITTEE)***

***Aspect:***

<b>Rules on “Information Society Services”</b>	<input type="checkbox"/>
<b>Technical Regulations</b>	<input type="checkbox"/>
<b>Standardisation</b>	<input checked="" type="checkbox"/>

**Document title:**

**Amendment to mandates M/101 and M/126 to CEN/CENELEC concerning the execution of standardization work on construction products intended to be used for external and internal doors and windows, roof openings and roof lights (including fire doors and shutters)**

**Document for:**

**Information  Discussion  Consultation**

**Status of document:**

**Draft**

**Originating service: DG ENTR / G5**

**Responsible person: Georgios Katsarakis ([georgios.katsarakis@ec.europa.eu](mailto:georgios.katsarakis@ec.europa.eu))**



EUROPEAN COMMISSION  
ENTERPRISE AND INDUSTRY DIRECTORATE-GENERAL

Chemicals, metals, mechanical, electrical and construction industries; Raw materials  
**Construction, Pressure Equipment, Metrology**

## AMENDMENT TO

MANDATES M 101 AND M 126 TO CEN/CENELEC CONCERNING THE  
EXECUTION OF STANDARDISATION WORK ON CONSTRUCTION PRODUCTS  
INTENDED TO BE USED FOR

### **EXTERNAL AND INTERNAL DOORS AND WINDOWS, ROOF OPENINGS AND ROOF LIGHTS (INCLUDING FIRE DOORS AND SHUTTERS)**

#### **EXPLANATORY NOTE**

The mandate M 101 for external and internal doors and windows, roof openings and roof lights from 1994 need to be amended in order to meet Member States' regulations concerning energy savings in light of directive 92/2002 on energy performance of buildings.

Furthermore in order to meet Member States' regulations this amendment covers a number of other characteristics to be dealt with where relevant.

The request is based upon existing regulations in Member States or Member States' regulations in the notification process.

**Reaction to fire:** At least one Member State (Germany) has general reaction to fire requirements. The mandate is therefore amended to meet this.

**Moisture resistance:** At least one Member State (Denmark) has a need for introduction of a moisture resistance factor in order to prevent energy efficient windows with very cold frames.

Verification of the moisture resistance could be based upon "EN ISO 13788: Hygrothermal performance of building components and building elements - Internal surface temperature to avoid critical surface humidity and interstitial condensation – Calculation methods" (EN ISO 13788:2001).

**The frame area ratio  $F_F$ :** Many Member States have implemented Directive 2002/91 with a calculation method based upon "EN ISO 13790 Energy performance of buildings - Calculation of energy use for space heating and cooling". The existing Danish building code includes the calculation of the solar heat gain through windows. To calculate the solar gain it is necessary to know the ratio  $Area_{Glass}/Area_{Window}$  or the ratio used in this standard called  $F_F$  or  $Area_{Frame}/Area_{Window}$ . The relation between the two ratios is  $F_F = 1 - Area_{Glass}/Area_{Window}$ .

**Radiation properties:** Furthermore taking into account of the solar gain the radiation properties are also needed. The mandate M 135 FLAT GLASS, PROFILED GLASS AND GLASS BLOCK PRODUCTS addresses this characteristic, but glass panes can also be produced by the manufacturer of windows without separate CE-marking of the glass panes.

**Impact resistance:** The injury risk for glazed doors is covered by the mandate. The use of huge windows with injury risks as for doors is quite common. The Danish building code covers this risk so therefore the characteristic impact resistance is added for windows (where relevant).

**Child safety:** At least one Member State (Sweden) has regulation concerning child safety which effect the construction of doors and windows and also window hasps and pinching preventers as such (with the child safety requirement) to be included in the related building hardware products list.

**This amendment modifies the original mandates in the following manner:**

The Annex 2 of mandate M 101 to CEN/CENELEC on **EXTERNAL AND INTERNAL DOORS AND WINDOWS, ROOF OPENINGS AND ROOF LIGHTS (INCLUDING FIRE DOORS AND SHUTTERS)** shall be modified as indicated in Annex A. The ANNEX II of mandate M 126 to CEN/CENELEC AMENDMENT of M 101 **DOORS, WINDOWS, SHUTTERS, GATES AND RELATED BUILDING HARDWARE** shall be modified as indicated in Annex B.

**OBJECTIVE**

The objective of this mandate is for CEN to amend the existing harmonised product standards (or standards under development) to cover ER 2, ER 3, ER 4 and ER 6 requirements to an extent that will allow CE marked construction products to be placed on national markets without additional national requirements.

**EXECUTION OF THE MANDATE**

After formal acceptance of the mandate, CEN will present to the Commission within 3 months a detailed proposal for the Work Programme.

After examination of the Work Programme and consultations with CEN, the Commission will endorse the timetable and the list of standards which meet the terms of this mandate.

## ANNEX A

### **Introduction:**

Annex 2 of the original mandate M101 to CEN/CENELEC on **DOORS, WINDOWS, SHUTTERS, BLINDS, GATES AND RELATED HARDWARE** shall be amended as follows:

Family of products: **DOORS AND WINDOWS WITH RELATED PRODUCTS:**  
Windows with or without incorporated shutters and blinds

Following new characteristics and amendments shall be addressed in the harmonised standards:

ER 2: 21a – Reaction to fire

ER 3: Moisture resistance

ER 4: The text concerning - **43c Impact resistance** (only for glazed doors with injury risks), shall be amended by adding windows: New text: - **43 Impact resistance** (only for windows and glazed doors with injury risks)

ER 4: Child safety

ER 6: The Frame area ratio ( $F_F$ )

ER 6: Radiation properties

Family of products: **DOORS AND WINDOWS WITH RELATED PRODUCTS:**  
Industrial, commercial, garage doors and gates

Following new characteristic shall be addressed in the harmonised standards:

ER 2: 21a – Reaction to fire

Family of products: **DOORS AND WINDOWS WITH RELATED PRODUCTS:**  
Building hardware

Following new characteristic shall be addressed in the harmonised standards:

ER 4: Child safety

ER 2: 21a – Reaction to fire

## ANNEX B

In the ANNEX II of mandate M 126 to CEN/CENELEC AMENDMENT of M 101 **DOORS, WINDOWS, SHUTTERS, GATES AND RELATED BUILDING HARDWARE** the following amendments concerning reaction to fire and new characteristics should be added:

Product family: **doors, windows, shutters, blinds, gates and related building hardware (1/1)**

In 3.2 products falling under system 1 for initial type testing of the product the following characteristics shall be added:

- Impact resistance
- Child safety

In 3.4 products falling under system 3 for initial type testing of the product the following characteristics shall be added:

- Impact resistance
- Child safety

Product family: **doors, windows, shutters, blinds, gates and related building hardware (1/2) reaction to fire**

### **1. Levels and classes for product performances**

1.1 According to article 3.2 of the CPD and Clause 1.2.1 of the IDs, a classification of product performance has been identified as the means of expressing the range of requirement levels of the works in respect of **reaction to fire**.

Regarding reaction to fire, CEN/CENELEC are requested to follow the Commission Decision 2000/147/EC (including amendments) and make reference to the standard(s) to be prepared under Commission mandate to CEN/CENELEC "Horizontal complement to the mandates in respect of reaction to fire" in dealing with reaction to fire in the specific harmonised product standards to be developed under this mandate.

1.2 Reaction to fire is a risk for which the need for a classification system has been identified for the time being.

Further needs may be identified on the basis of differences specified in Article 3 (2) of the CPD, which are justified in conformity with Community law (IDs Clause 1.2.1).

Where for such needs it is recognised that a classification of product performance is the means of expressing the range of requirement levels of the works, the Commission will give the appropriate guidance or will request CEN/CENELEC to make the appropriate proposal through a modification to this mandate.

## 2. Systems of attestation of conformity

For the product(s) and intended use(s) listed below, CEN/CENELEC are requested to specify the following system(s) of attestation of conformity in the relevant harmonised standard(s):

Product(s)	Intended use(s)	Level(s) or class(es) <i>(reaction to fire)</i>	Attestation of conformity system(s)
<b>Doors, windows, shutters, blinds, gates and related building hardware</b>	for uses subject to regulations on reaction to fire	A*, B*, C*	<b>1</b>
		----- A**, B**, C**	<b>3</b>
		----- A***, D, E, F	<b>4</b>
System 1: See CPD Annex III.2.(i), without audit-testing of samples			
System 3: See CPD Annex III.2.(ii), Second possibility			
System 4: See CPD Annex III.2.(ii), Third possibility			

\* Materials for which the reaction to fire performance is susceptible to change during production (In general, those subject to chemical modification, e.g. fire retardants, or where changes of composition may lead to changes in reaction to fire performance)

\*\* Materials for which the reaction to fire performance is not susceptible to change during the production process

\*\*\* Materials of class A1 that according to the Decision 96/603/EC (including amendments) do not require to be tested for reaction to fire.

## 3. Conditions to be applied by CEN on the specifications of the attestation of conformity system

3.1 The specification for the system should be such that it can be implemented even where performance does not need to be determined for a certain characteristic, because at least one Member State has no legal requirement at all for such characteristic [see the "no performance determined" case under Article 2.1 of the CPD and when article 3.2 classes apply, clause 1.2.3 of the Interpretative Documents]. In those cases the verification of such a characteristic must not be imposed on the manufacturer if he does not wish to declare the performance of the product in that respect.

3.2 Regarding products falling under system 1 for the initial type testing of the product [see Annex III.1.a) of the CPD] the task for the approved body will be limited to the following characteristics, where relevant:

**Class for reaction to fire** as indicated in Commission Decision 2000/147/EC

3.3 For products falling under system 1, for the initial inspection of the factory and of the factory production control [see Annex III.1.f) of the CPD], and for the continuous surveillance, assessment and approval of the factory production control

[see Annex III.1.g) of the CPD], parameters related to the following characteristics shall be of the interest of the approved body, where relevant:

**Class for reaction to fire** as indicated in Commission Decision 2000/147/EC

- 3.4 For products falling under system 3 for the initial type testing of the product [see Annex III.1.a) of the CPD] the task for the approved body will be limited to the following characteristics, where relevant:

**Class for reaction to fire** as indicated in Commission Decision 2000/147/EC