



Fireproof cables in accordance with EU Construction Products Regulation (CPR)

The European Union reports a worrying number of deaths in fires. However, the high proportion of deaths caused by toxic gases is a major concern. Removal of technical barriers in construction can only be achieved by introducing harmonized technical specifications for the purpose of assessing the characteristics of construction products.

For these reasons, the European Union amended Regulation 305/2011 known as CPR (Construction Products Regulation), which defines the classification of construction products. This way, it wants to achieve increased security in buildings. This regulation comes with a system designed to ensure that only approved products are used on sites.

CPR monitors the following characteristics:

- Mechanical resistance and stability
- Safety in case of fire
- Hygiene, health and the environment
- Safety and accessibility in use
- Protection against noise
- Energy economy and heat retention
- Sustainable use of natural resources

Construction product

"Construction product" means a product or a kit that is manufactured or marketed for the purpose of permanent incorporation in a building or part thereof and the characteristics of which affect the performance of the building with regard to the essential requirements for buildings

When assessing the properties of a construction product, account should also be taken of the health and safety aspects related to its use throughout its lifecycle.

Content of Declaration of Performance

The Declaration of Performance lists the characteristics of construction products in relation to the essential characteristics of the concerned products in accordance with the relevant harmonized technical specifications

Reaction to fire according to EN 50575

The "Reaction to fire" property has been defined for cables without cable route functionality and is regulated by the European Standard EN 50575 that describes which specific characteristics of cables are classified during combustion, it determines the classification scale, refers to the test methods and imposes obligations on the manufacturer to make out the necessary documentation and product designation.

Classification

Standard EN 50575 requires manufacturers to test each cable without cable route functionality and assign all of these cables to one of the seven classification classes, i.e. either Aca, B1ca, B2ca, Cca, Dca, Eca or Fca, while class A represents a nearly non-flammable material. The "ca" index is just an abbreviation for "cable". Classification into a particular class is determined on the basis of combustion heat, flame spread, total heat release, and fire growth rate index. This main classification scale is supplemented by an additional classification for smoke production, flaming droplets and acidity.

The additional classification is marked by abbreviations based on the words smoke, droplets and acidity and is further defined by the following scale.

Test methods for reaction to fire classes

Class	EN 503994ª	EN 60332-1-2	EN 61034°	EN 60745-2 ^{c,d}
B2 _{ca}	х	х	х	х
C _{ca}	х	х	х	х
D _{ca}	х	х	х	х
E _{ca}	-	х	-	-
F _{ca}	No performace declared			

Supplemental classification - examples

Class	Smoke developed	Burning droplets	Acidity	Safety require in the building
B2 _{ca}	s1	d1	a1	very high
C _{ca}	s1	d1	a1	high
D _{ca}	s2	d2	a1	medium
E _{ca}				low
F _{ca}				none

DECLARA	No. 2/17	5	
1. Unique identification code of the product-type:	J/A-DQ(BN)H (BE02		
2. Intended use/es:	Communication fiber optical cable		
3. Manufacturer:	KABELOVNA Děčín Podmokly, s.r.o., Ústecká 840/33, 405 33 Děčín 5, CZECH REPUBLIC		
4. Authorised representative:		-	
5. System/s of AVCP:	3		
6. Harmonised standard:	EN 50575:2014+A1:2016		
Notified body/ies:	ELEKTROTECHNICKÝ ZKUŠEBNÍ ÚSTAV s.p. , No. 1014		
7. Declared performance/s:	Reaction to fire	Eca	
	Dangerous substances	NPD	
8. Appropriate Technical Documentation and/or Specific Technical Documentation:	Test report No.	701511-01/04 from 18.5.17	
The performance of the product identified ab This declaration of performance is issued, in sole responsibility of the manufacturer identi Place of issue: Děčín Signed for and on behalf of the manufacturer Function:	ove is in conformity with the se accordance with Regulation (fied above. Date of issue: 5.6.2 r: Ing. Lenka Mádlová Commercial directo	ot of declared performance/s. EU) No 305/2011, under the	

KABELOVNA Děčín Podmokly, s.r.o.

Ústecká 840/33 | 405 33 Děčín | Czech Republic Phone +420 412 706 111 | E-mail sales@kabelovna.cz www.kabelovna.cz