

CPR

Construction Products Regulation

(EU Regulation No. 305/2011)

“FINALLY SAFETY
IS NO LONGER
AN OPTION!”



- The Construction Products Regulation (CPR) is a European regulation that lays down harmonised basic requirements and essential characteristics that **all products designed for a permanent incorporation in civil engineering works** (buildings, hospitals, cinemas, etc.) are to satisfy for the scope of application.

- 'Construction products'** means any product or kit which is produced and placed on the market for a permanent incorporation in construction works or parts thereof and the performance of which has an effect on the performance of the construction works with respect to the basic requirements for construction works.

- This incorporation must be stable and last as long as the life of the construction work.

- This applies to all constructions products (fixtures, floorings, etc.) and **power cables without constraints as regards voltage and type of conductor made to be used as CP (Annex IV, Construction Products Regulation)**

- This Regulation came into force on **1st July 2013** in all Member States of the European Community

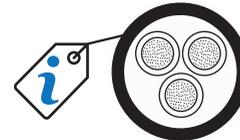
Official Journal of the European Union
Regulation (EU) No. 305/2011



This Regulation lays down the conditions **for the first placing** and making available of construction products on the market.



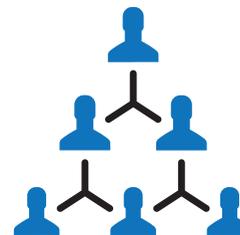
Objective: To ensure the free movement of construction products within the European Union and to protect the market against non-conforming products.



How to reach such objective: By establishing a harmonised technical language in order to define performance and essential characteristics of products based on test methods, as determined in the CEN/CENELEC harmonised technical specifications (product/ test standards) that must be transposed and implemented in all Member States.



So as to: Knowingly select the level of performance needed to ensure the safety of people and property.



Responsibility: Shared by all the players in the industry.

The European Commission has decided to hold the following requirements crucial for cables among the characteristics regarded as relevant for the safety of buildings:

Safety in case of fire

(Requirement No. 2 – Annex 1, CPR)

The construction works must be designed and built in such a way that in the event of an outbreak of fire:

- The development and spread of fire and smoke within the construction works are limited
- The spread of fire to neighbouring construction works is limited
- Occupants can leave the construction works or be rescued by other means
- The safety of rescue teams is taken into consideration.

The Construction Products Regulation applies to all power and communication cables, no matter their voltage or the type of conductors fitted permanently in construction works subject to the following fire performance requirements:

Reaction to Fire

(the property of cables not to propagate fire and give off thick smoke and acid gases) European standards on fire classification already available and applicable for this type of cables

Resistance to Fire

Currently exempted from the fire classification since the European standards for this range of products are still being prepared.

(The property of cables to continue to function while under the influence of fire)

Hygiene, health and environment

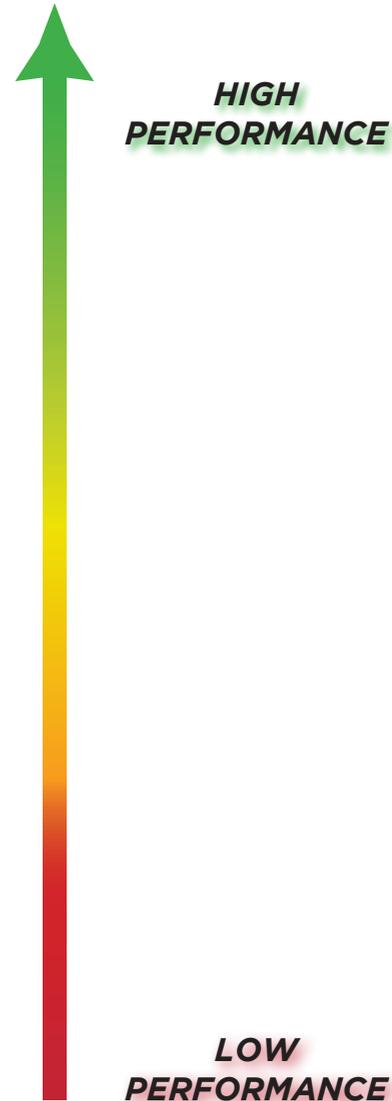
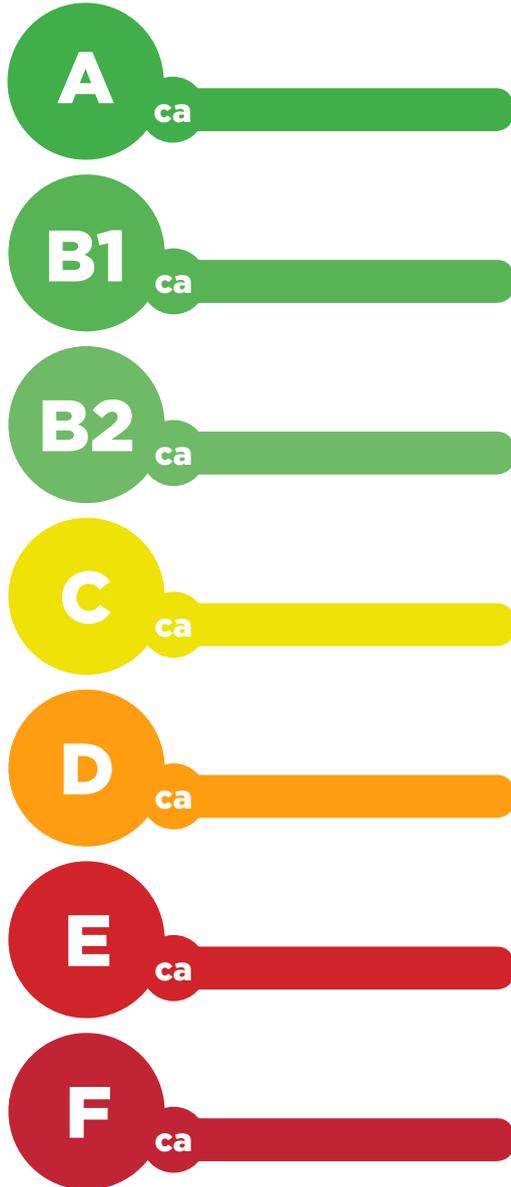
(Requirement No. 3 – Annex 1, CPR)

Construction works must be designed and built in such a way that they will, throughout their life cycle, not be a threat to the hygiene or health and safety.

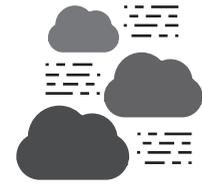
The requirements related to hygiene, health and the environment are implicitly complied with since cables comply with the RoHS Directive (2011/65/EU as amended) and the REACH Regulation (1907/2006/EC).



Cables are classified into 7 classes of Reaction to Fire identified by letters from «F» to «A», ranging from the lowest to the highest performance, and the subscript 'ca' (cable)



Beside the above main classification, the European Authorities have also implemented the use of the following **additional parameters**:



S Smoke opacity
(s1 – s2 – s3 / s1a – s1b)



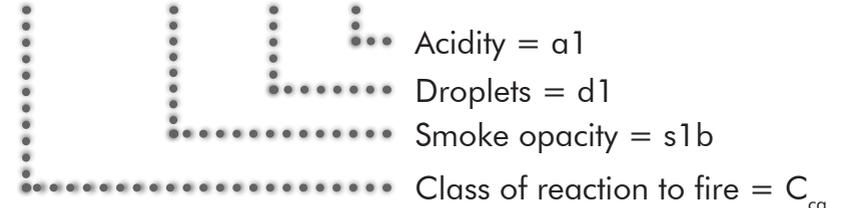
d Flaming droplets
(d0 – d1 – d2)



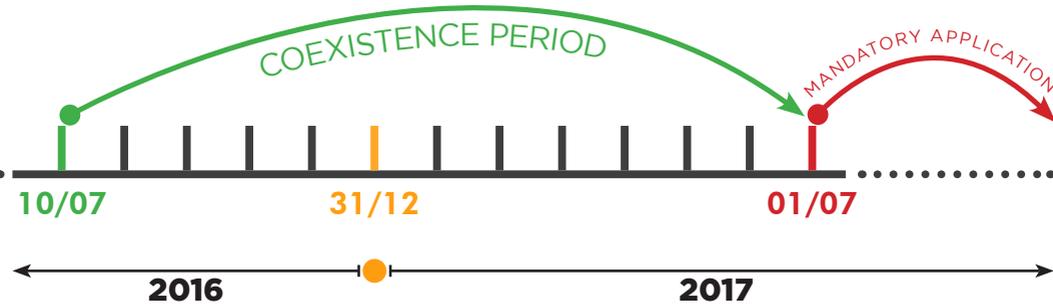
a Acidity which defines how harmful to humans and corrosive to objects gases and smoke are
(a1 – a2 – a3)

Example of classification

C_{ca} - s1b, d1, a1



The Construction Products Regulation on power cables became effective when the EN 50575+A1 standard was published in the list of Harmonised Standards pursuant to that Regulation (Commission communication published in the Official Journal of the European Union C209/03 of 10th June 2016).



- March 2016 CENELEC publishes EN 50575 + A1:2016
- 10/07/2016 CE-marked cables can be placed on the market under CPR and the coexistence period begins
- 01/07/2017 CE-marking mandatory under CPR and the coexistence period ends

The CPR introduces the following obligations for construction products:

• CE Marking



The CE marking should not be confused with a voluntary or optional quality label; it is a compulsory conformity mark for the free movement of products in the European Community. The CE marking is the only marking conformity of the construction product in accordance with the performance declared in the DoP. By affixing the CE marking on the product, the manufacturer takes full responsibility for the conformity of that product.

• Declaration of Performance (DoP)



As soon as CPR cables are placed on the market, the manufacturer shall draw up the Declaration of Performance, once all the requirements specified in EN 50575 are met.

• Assessment and Verification of Constancy of Performance (AVCP) System

Based on the class of reaction to fire, both the construction plan and the constancy of performances are to be verified by Notified Bodies.

THE CHART SHOWS THE LISTS OF ALL THE TASKS AS SPECIFIED IN EN 50575

PERFORMANCE CLASS	ASSESSMENT SYSTEM	TASKS PERFORMED BY MANUFACTURER	TASKS PERFORMED BY NOTIFIED BODY
A _{ca} B1 _{ca} B2 _{ca} C _{ca}	1 +	Plan for Factory Production Control (FPC)	<ul style="list-style-type: none"> • Sampling for Initial Type Testing (ITT) • Initial Type Testing (ITT) • Initial inspection of the FPC • Surveillance of FPC • Surveillance of factory production before products are placed on the market
D _{ca} E _{ca}	3		<ul style="list-style-type: none"> • Initial Type Testing (ITT)
F _{ca}	4	<ul style="list-style-type: none"> • Plan for Factory Production Control (FPC) • Initial Type Testing (ITT) 	/

ITT = Initial type Testing
FPC = Factory Production Control

STANDARDS

IEC STANDARDS on materials, cables and installations have been adjusted to the requirements required by the Regulation.

DESIGN

La Triveneta Cavi S.p.A. has introduced some modifications to the design of same cables in order to attain the reaction to fire class set.

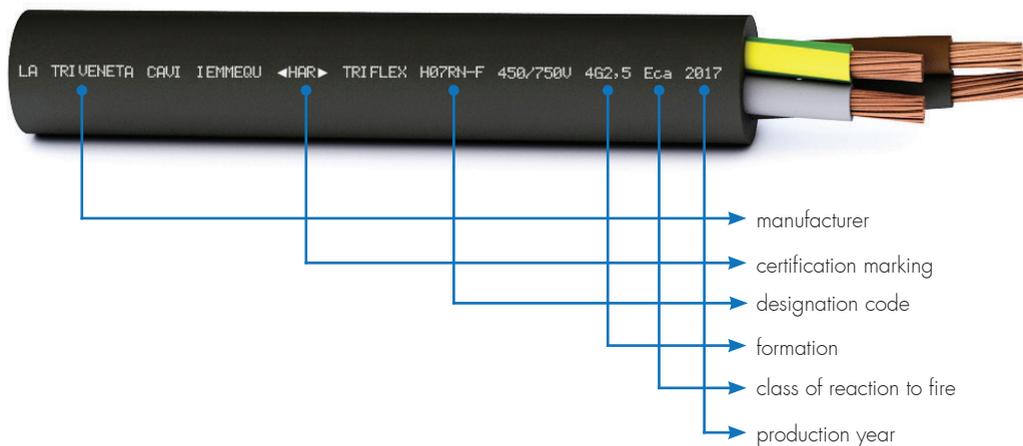
CODES

The CODES to identify cables that comply with the Regulation have come into force.

MARKING

CABLES must bear the classification on them, should it be required by the market, and the CE marking must be on the label

Additional information may be included at the manufacturer's discretion provided that it is not confusing or does not conflict with any other compulsory marking. Further information can be marked in order to ensure the product traceability required by the Construction Products Regulation.

Example of marking

- The CE marking shall be affixed next to the indications provided for in art. 9 of the Construction Products Regulation (example: Identification number of the DoP, name and address of the manufacturer, etc.).
- If there is no physical space to include the above data on the cable, the CE marking shall be included on the label, reel, box or package.

Example of label

 1 LA TRIVENETA CAVI S.P.A. VIA ORNA,35 - 36040 BRENDOLA (VI) - Italy www.latrivenetacavi.com		Made in Italy CE 2 IEMMEQU <HAR> 17 3
4 TRIFLEX H07RN-F 4G2.5mm² m. 1000		
Art. Nr. 602175001 Color: BLACK Electric Code:		Manufactured: 04/17
Standards: CEI EN 50525-2-21	EN 50575:2014+A1:2016 5 Class. Eca 7 Cod. 602-H07RN-F-PC.MC.S.	DoP n. 602404000 6 Labor: 0051 8 Sost. Per. NPd
9 Cod. 602-H07RN-F-PC.MC.S.		10 ELECTRIC CABLE FOR GENERAL APPLICATIONS IN CONSTRUCTION WORKS SUBJECT TO REGULATIONS TO FIRE. ONLY PROFESSIONAL USE IN ACCORDANCE WITH APPLICABLE REGULATIONS
EAN  8 009929 27203		
		

Key:

- Name and address of manufacturer
- CE Marking
- Year in which the CE-marking was first affixed under the CPR
- Cable code
- European standard applied CPR
- DoP Reference number
- Class of reaction to fire
- Notified Body ID number
- Unique identification code of the product
- Intended use as laid down in the European standard
- Pictogram indicating instructions and/or warnings

- The Declaration of Performance of each cable which is placed on the market must be made available to the end-user. In turn, the latter shall submit the DoP to the competent authorities when they so required (art. 7 of the CPR). It can be supplied either in paper form or by electronic means (<http://www.latrivenetacavi.com/en/cpr-dopfindex.aspx>)
- The DoP must be supplied no matter the level of performance declared, even if it is the lowest class (F).
- The DoP must include all the information specified in Annex III of the CPR
- Manufacturers are to keep the DoP available for a period of 10 years.

LA TRIVENETA CAVI
WE MOVE ENERGY

Declaration of performance (DoP) Number: 602404000
EU Regulation No. 305/2011

- Unique identification code of the product-type:
602-4/07RN-F-PC.MC.S. H07RN-F / 07RN-F multi-core
- Intended use:
Electrical cable for general applications in construction works subject to reaction to fire requirements.
- Manufacturer:
La Triveneta Cavi S.p.A.
Via Orno, 35 - Brendola (VI) Italy
- Authorized representative:
/
- Systems of assessment and verification of constancy of performance (AVCP):
AVCP 3
- Harmonized Standard:
EN 5075:2014+A1:2016
- Notified Body:
0051
IMQ
- Declared Performance
Reaction to Fire: **Eca**
Hazardous substances: **NPD**

The performance of the aforementioned product complies with the declared performance (point 8). This Declaration of Performance is issued under the exclusive responsibility of the manufacturer (point 3).

Signed in the name and on behalf of the manufacturer by:
[Name and surname] **Giorgio Massignan**
Place **Brendola** Date of issue **16/01/2017**
Signature

www.latrivenetacavi.com

- Non-CE-marked cables (under the CPR) can be, however, used:
 - ◇ In applications other than those covered by the CPR
 - ◇ Outside the European Union (export).

NATIONAL CABLES

CURRENT DESIGNATION	CPR DESIGNATION	PERFORMANCE CLASS
U-1000 R2V	U-1000 R2V	E _{ca}
FR-N1X1G1-U/R	FR-N1X1G1-U/R	C _{ca} -s1,d1,a1
XVB-F2	XVB	C _{ca} -s3,d2,a3
EXVB-F1	EXVB	E _{ca}
XGB-F2	XGB	C _{ca} -s1,d1,a1
VVT-F2	VVT	C _{ca} -s3,d2,a3
NHXMH-J/O	NHXMH-J/O	E _{ca}
6241/6242/6243Y	6241/6242/6243Y	E _{ca}
6241/6242/6243B	6241/6242/6243B	E _{ca}
YSLY	YSLY	E _{ca}
YSLY CY	YSLY CY	E _{ca}
YCY Busleitung	YCY Busleitung	E _{ca}
HCH Busleitung	HCH Busleitung	E _{ca}
J-Y(St)Y Lg	J-Y(St)Y Lg	E _{ca}
NYY-J/O	NYY-J/O	E _{ca}
NYM-J/O	NYM-J/O	E _{ca}
FE0	FE0 D	D _{ca} -s2,d2,a2
S1BQ-F	S1BQ-F	E _{ca}
TT (CH-N1VV-U/R)	TT (CH-N1VV-U/R)	E _{ca}
FG7(O)R	FG16(O)R16	C _{ca} -s3,d1,a3
FG7(O)M1	FG16(O)M16	C _{ca} -s1b,d1,a1
N07V-K	FS17	C _{ca} -s3,d1,a3
N07G9-K	FG17	C _{ca} -s1b,d1,a1
TR/R	TR/R	E _{ca}
S1XZ1-U/R	S1XZ1-U/R	E _{ca}
ELQYB	ELQYB	D _{ca} -s2,d2,a2
MMJ / MKMJ	MMJ / MKMJ	E _{ca}
MMJ-HF	MMJ-HF	E _{ca}
TRI-RATED	TRI-RATED	E _{ca}

HARMONIZATION CABLES

CURRENT DESIGNATION	CPR DESIGNATION	PERFORMANCE CLASS
H05V-K/U	H05V-K/U	E _{ca}
H07V-K/U/R	H07V-K/U/R	E _{ca}
H05V2-K/U	H05V2-K/U	E _{ca}
H07V2-K/U/R	H07V2-K/U/R	E _{ca}
H05Z-K/U	H05Z-K/U	E _{ca}
H07Z-K/U/R	H07Z-K/U/R	E _{ca}
H05Z1-K/U	H05Z1-K/U	D _{ca} -s2,d2,a2
H07Z1-K/U/R type2	H07Z1-K/U/R type2	D _{ca} -s2,d2,a2
H03VV-F / H03VVH2-F	H03VV-F / H03VVH2-F	E _{ca}
H05VV-F / H05VVH2-F	H05VV-F / H05VVH2-F	E _{ca}
H05VV5-F	H05VV5-F	E _{ca}
H05VVC4V5-K	H05VVC4V5-K	E _{ca}
H07RN-F	H07RN-F	E _{ca}
H07BN4-F	H07BN4-F	E _{ca}
H07BQ-F	H07BQ-F	E _{ca}

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La Triveneta Cavi S.p.A.

Via Orna 35, 36040 - Brendola (VI)

Tel. +39 0444 705200 **Fax** +39 0444 401244

E-mail info@latrivenetacavi.com



www.latrivenetacavi.com