



# CPR FAQs

## What is CPR?

CPR stands for “Construction Products Regulation”, which are rules implemented by the European Commission. CPR rules call for products – including cables – to be tested and certified based on certain criteria before they are used in European buildings. There are six requirements against which products may be assessed. Wire and cable is covered by the 2nd requirement that addresses Safety in the case of fire.

CPR ensures that distributors, consultants, systems integrators, installers and building owners have reliable product information from different manufacturers in different countries to make accurate product comparisons. This will allow for free movement of all construction products within the European Union.

## When does CPR become applicable?

CPR has officially come into force as of June 10, 2016. The transition period will end one year later, in July 2017.

## For whom is CPR applicable?

CPR language applies to architects, engineers, contractors, member states, manufacturers and end users. It must be used when specifying requirements and selecting products.

## What are Euroclasses?

Euroclasses are uniform assessment methods or classifications that reflect real-life environments for building products based on reaction-to-fire performance. The Euroclass Table defines seven classes for the reaction to the fire performance of cables. Heat release and flame spread are the main classification criteria; smoke production, flaming droplets and acidity are additional classification criteria.

Euroclass (ca)	Classification Criteria	Additional Criteria	Assessment and Verification of Constancy of Performance System
<b>A</b>	EN ISO 1716 Gross heat of combustion		1+ initial type-testing and factory inspection and continuous surveillance of factory production control (FPC) with audit testing of samples by 3rd party notified product certification body
<b>B1</b>	EN 50399 Heat release Flame spread	Smoke production (s1a, s1b, s2, s3) EN 50399/EN 61034-2	
<b>B2</b>		Acidity (a1, a2, a3) EN 50267-2-3	
<b>C</b>	EN 60332-1-2 Flame propagation	Flaming droplets (d0, d1, d2) EN 50399	3 initial type-testing by 3rd party notified testing laboratory FPC by manufacturer
<b>D</b>			
<b>E</b>	EN 60332-1-2 Flame propagation		4 initial type-testing and FPC by manufacturer
<b>F</b>			

### **How do Euroclasses compare with other (international) fire standards?**

CPR Euroclasses address all aspects of a cable's behavior during a fire. Behavior is measured against time on real size samples.

Euroclass E<sub>ca</sub> is defined with reference to IEC/EN 60332-1-2. For the other classes there is no direct relationship between existing IEC test and CPR. The basic structure of the testing rig is the same, but because of different mounting requirements and the use of new parameters, the test results are not comparable.

After July 1st, the use of IEC standards on CPR applicable cables is prohibited.

### **What is a Declaration of Performance?**

A Declaration of Performance expresses the performance of construction products, including cables, in relation to the essential characteristics of those products. It identifies the product, its intended use and its essential characteristics. A Declaration of Performance requires the manufacturer, importer or distributor to assume legal responsibility for the conformity of the construction product with its declared performance.

### **What is a CE marking?**

The CE marking allows a product to be placed legally on the market in any member state. It indicates that a product is consistent with the manufacturer's Declaration of Conformity/Performance.

### **Which cables are involved in CPR?**

All power, control and communication cables that are installed in fixed installations in buildings and other civil engineering works.

### **Which buildings are involved in CPR?**

All buildings and civil engineering works are involved in CPR.

### **Which applications are involved in CPR?**

According to the CPR framework the actual performance level required for any particular regulated application is a National matter.

Basis for country CPR-level decisions can include e.g. Fire risk, Ease of Escape in case of fire or exposed area of cable surface.

### **What is AVCP?**

AVCP stands for "Assessment and verification of constancy of performance", which requires that the compliance of power, control and communication cables with the requirements of CPR and with the performance (including classes) declared by the manufacturer in the Declaration of Performance (DoP) shall be demonstrated by:

- determination of the product-type,
- factory production control by the manufacturer, including product assessment.

The manufacturer shall always retain the overall control and shall have the necessary means to take responsibility for the conformity of the product with its declared performance.

### **What is the responsibility of manufacturers in CPR?**

Before placing a product on the market, there are certain rules that manufacturers must follow. First, manufacturers must make a Declaration of Conformity/Performance stating the Euroclass performance of the specific product. Then they must affix the CE marking and keep all documentation for 10 years. Depending on the Euroclass of a product they are also required to monitor the product (including selftesting of samples) following additional AVCP requirements. Furthermore they must ensure that it is identifiable, list contact information on the product and provide instructions and safety information in appropriate languages. Manufacturers must also take corrective measures when necessary, and cooperate with any requests from authorities.

### **What is the responsibility of end users in CPR?**

When working with the project team to draw up specifications, end users should refer to the harmonized technical specifications (specifically to the requirements of individual characteristics). When choosing products for construction projects, end users should review the Declaration of Conformity/Performance from the manufacturer. They must also check national annexes or standard recommendations, which offer guidance about appropriate minimum product performance levels. Compliance with local building regulations should also be followed by end users.

### **What is the responsibility of integrators in CPR?**

Integrators have a list of responsibilities that are similar to those of end users. They should refer to the harmonized technical specifications (specifically to the requirements of individual characteristics) when drawing up project specifications. When selecting products for use in European buildings, integrators should be sure to review the manufacturer's Declaration of Conformity/Performance. They must also check national annexes or standard recommendations for guidance on appropriate minimum product performance levels. Compliance with local building regulations should also be ensured.

### **What is the responsibility of importers in CPR?**

Importers are required to follow several steps as part of CPR. First, they must verify that manufacturers have done everything required to comply with CPR rules, including additional requirements as determined by the AVCP rules. Next, importers should make sure that their own name and contact details are visible on the product, its labeling or the product's associated documents; instructions and safety information must also be in the appropriate language of the particular market. When stored or moved, products must not be altered to void compliance. As long as the product is on the market, it should be monitored. Documentation should be kept for 10 years by importers. Importers must take corrective measures when necessary, and cooperate with any requests from authorities.

### **What is the responsibility of distributors in CPR?**

As part of the project team, distributors must ensure that the product is compliant and has all documentation to verify CPR compliance. All instructions and safety information must be in the appropriate language of the particular market. Distributors should check to see that the manufacturer has made the product identifiable, and that the manufacturer's/importer's contact details are visible. If products are stored or moved by the distributor, it must be done in such a way that compliance isn't altered. Distributors must take corrective measures when necessary, and cooperate with any requests from authorities. When a distributor places a product on the market under its own trade name, or modifies a product in any way, the distributor is then viewed as the manufacturer.

### **How do countries implement CPR?**

Currently many countries have their own national fire regulations. This has not allowed for free movement of products in Europe; national laws that contain essential product requirements are not harmonized. CPR rules will change this. The rules will be applied without differences of interpretation by each member state.

### **How do countries determine which Euroclasses are required?**

Each country will decide how CPR Euroclasses will be used in construction standards or regulations. With most countries having introduced their CPR implementation by now we can see big differences in which Euroclasses are going to be required per country. Many countries prescribe Euroclasses between E<sub>ca</sub> and B2<sub>ca</sub>, depending on the building type or application, but exceptions exist. Therefore it is always important to check the national CPR implementation for each country.

### **What are Notified Bodies?**

A notified body is an independent, third-party body recognized by the European Union. CPR includes three types of notified bodies: product certification body, factory production control certification body and a testing laboratory.

### **What is the difference between “reaction to fire” and “resistance to fire”?**

“Reaction to fire” describes a cable’s behavior during combustion, as well as its potential contribution to the development of fire. How do the cables contribute to a fire, and the consequences of a fire?

“Resistance to fire”, however, describes a cable’s ability to continue operating as normal during a fire situation. How long can the cable function adequately in a fire?

### **Who can I contact at Belden about my CPR questions?**

Customers can contact Belden at <http://info.belden.com/cpr> to find the answers to any of their CPR questions.

### **What does Belden do to support compliance with CPR?**

Belden has made significant investments to make sure its cable products comply with CPR rules. Its cross-functional team of research and development, product management, production, quality and purchasing experts has ensured that all of relevant cables are tested, the applicable CPR levels of performance for products are identified and third-party approvals are obtained from notified bodies; Declarations of Conformity/Performance and CE markings will then be available. In line with AVCP requirements Belden will demonstrate compliance to CPR, the Euroclass performance as declared by the Declaration of Performance (DoP) and will have the necessary means to take responsibility for the conformity of the product with its declared performance.

### **How can Belden help make sure I comply with CPR?**

From end users and consultants to systems integrators and distributors, Belden has the knowledge to help all team members successfully deal with new CPR requirements. A CPR “mini guide” has been made available by Belden, offering all parties the information they need about CPR background, regulation details and implications of the new rules.

### **How can I recognize a genuine CE-marked cable?**

On the Declaration of Performance and Product Label the Notified Body code is declared. This code can be verified in the database of Notified Bodies that is made available on the website of the European Union.

### **Will cable designs change due to CPR requirements?**

Depending on the cable type, changes to design may be required to obtain certain Euroclass performance.

### **How is it defined that a cable is certified as Euroclass Xxx?**

All cable is tested in line with the test methods of norm EN 50575 and the outcome of this test defines the Euroclass classification for a cable.

**Be certain.  
Belden.**