HellermannTyton
www.htdata.co.uk

CPR - Construction Products Regulations

Update May 2017

Summary

A significant change to the cabling market is now taking place and must be completed by the 1st July 2017. The Construction Products Regulations now includes copper and optical fibre cables used in the delivery of permanently fixed networking infrastructure within a building and will require cables to be tested to a new European certification class for reaction to fire.

This is to help standardise on the terminology used to describe the performance of cables in the event of a fire so removing any ambiguity surrounding acronyms such as LS0H, LSZH, LSF to name but three commonly used terms.

Overview

The Construction Products Regulation (CPR) began its life in the early 1990's as the Construction Products Directive (CPD). It is intended to cover products "placed on the market for incorporation in a permanent manner in construction works" and provides harmonised rules for the marketing of construction products in the EU and a "common technical language to assess performance of construction products". Up to now cable has been excluded from these regulations but from 1st July 2016 this changed.

Following the adoption of the directive a one year change over period [widely called the co-existence period] (until 1st July 2017) has been allowed to enable the transition to the new testing and markings.

This means that from the 2017 date; cables or their packaging not displaying the relevant EuroClass performance and CE marking cannot be placed onto the market, although cable already in the market prior to this date is unaffected.

To avoid confusion at this point there are two things to consider:

- "Introduction to the market" means shipped directly from the manufacturer or their appointed agent (if the cable is manufactured outside the EU), cables already in the supply chain are those at distributors, sub-distributors, installers or in fact any point after the manufacturers (or agents) warehouse.

So after 1st July 2017 it will still be completely legal to use product already in the supply chain until it has been consumed.

- The CPR requirements becomes manditory for cable supplied across boarders within the European Union not going to desinations outside the EU.

Although the adoption of the CPR is mandatory in all member states the minimum level is set by each state independantly. With the release of the revised IET wiring regulations (BS7671) to the 18th edition which is planned for 1st July 2018 this was expected to dicate what level would be set as the minimum requirement here in the UK, however, in the early draft releases it seems to be being deffered to BS6701, "Installation Maintenance and Operation of Telecommunications Infrastructure". This standard also requires updating to include the latest CPR requirements.

Nothing is yet confirmed within either standard but the expectation is that the minimum level for new installations will be set as class Eca (ca = cable). This is becase Class Eca is the closest to the current EN60332-1 standard for flammibility. In the meantime, and before the release of the BS6701 or BS7671 , the minimum level will be determined by customer specification.

The CPR only applies to the fixed cabling infrastructure and does not cover the connecting hardware, patch leads or fanout assemblies. Any pre-terminated solutions such our RapidNet copper & fibre solutions are considered to be part of the permanent structure of the building therefore will rely on the certificates for the bulk cables used in their construction. They will not need to carry seperate certification.

Managing CPR

Part of the requirements for CPR, as the manufacturer, HellermannTyton have a responsibility to create and maintain a library containing testing information and certificates for declaring the performance of each cable in relation to their reaction to fire.

For cables manufacturered by 3rd party suppliers we will be able to show traceability back to the regulations and supply certificates if requested but HellermannTyton does not maintain this certification.

The Decleration Of Performance (DOP) certificates must be uniquely identifed for reference, identify the cable specifically and detail the performance of the cable in relation to fire. The certificate must be signed on behalf of the company

To enable traceability the labeling, the packaging or the product itself (or any combination of these) must include the DOP certificate number and the unique product number, HellermannTyton has elected to use the label on the package to identify the products.

Once installed the legend on the cable enables traceability in order to be able to confirm compliance to the regulations. The cable will not be CE marked.

Identification of Products

In order to identify the products that meet the requirements of CPR there are three options for marking, or any combination of the three:

- Label on the packaging,
- The packaging
- The cable

HellermannTyton has elected the first option and an example of the copper cable label is listed below:

1 - Part Number

2 - Unique Identification Number

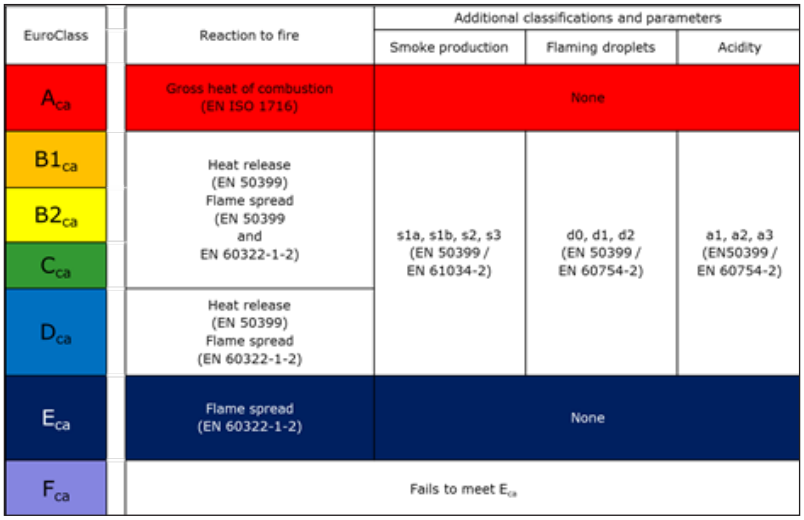
3 - DOP Certificate Number

4 - Euroclass Performance

Once the cables are installed the packaging may be removed from site therefore HellermannTyton is ensuring on-going traceability will be provided by the serial number within the legend on the cable.

Euro Class Performance Levels

Attached are details of the EuroClass levels and what is tested, these tests must be validated by an approved 3rd party testing facility and will become part of the products labelling and may be applied to the cable jacket in due course.



EuroClass	Reaction to fire	Additional classifications and parameters		
		Smoke production	Flaming droplets	Acidity
A_{ca}	Gross heat of combustion (EN ISO 1716)	None		
$B1_{ca}$	Heat release (EN 50399) Flame spread (EN 50399 and EN 60322-1-2)	s1a, s1b, s2, s3 (EN 50399 / EN 61034-2)	d0, d1, d2 (EN 50399 / EN 60754-2)	a1, a2, a3 (EN50399 / EN 60754-2)
$B2_{ca}$				
C_{ca}				
D_{ca}	Heat release (EN 50399) Flame spread (EN 60322-1-2)			
E_{ca}	Flame spread (EN 60322-1-2)	None		
F_{ca}	Fails to meet E_{ca}			

- EN ISO 1716 – the testing process for determining the calorific potential of a burning cable
- EN 50399 – testing "Flaming droplets"– Burning behaviour of a bundle of cables
- EN60332-1-2 – testing of electrical and optical cables under fire conditions
- EN61034-2 – testing "Generation of smoke" – smoke density for burning cables under enclosed conditions
- EN60754-2 / EN 50267-2-3 – testing "Gases evolved during combustion" - the type of chemicals derived during combustion in enclosed conditions