



YOUR GUIDE TO UNDERSTANDING CPR WITH EXCEL NETWORKING SOLUTIONS

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CONTENTS

What is CPR?	4
When will this happen?	5
Why the update?	6
Which products are impacted?	7
Who is responsible?	8
CPR Characteristics	10
The Importance of Choosing a Euroclass	12
Euroclass Criteria	14
Euroclass by Country	16
Proving Compliance	17
Excel Networking Solutions' Commitment	20
Take the Excel Challenge	24

WHAT IS CPR?

The Construction Products Regulation (CPR) provides a common technical language to assess the performance of construction products in the EU.

It lays down harmonised specifications to assess how a cable reacts to fire through a universal classification structure, known as Euroclasses.

The classification structure includes seven Euroclasses (from A to F) where A-class cables have the least reaction to fire, and F the most. Other considerations within the Euroclass structure are heat release, smoke production, light transmittance, flaming droplets and acid gas production.

WHEN WILL CHANGES HAPPEN?

1989 - The original Construction Products Directive (CPD) included fire safety benchmarks.

1st June 2016
The period of "Co-Existence" began.

30th November 2017
The BS6701:2016+A1:2017 amendment was published to assist the market in the specification of Euroclasses.

30th June 2025
Until 30 June 2025, in Great Britain, both the UK mark and the CE mark will be recognised. Construction products supplied to the GB market from this date must bear the UKCA marking.



WHY THE UPDATE?

Every year, many people die or are seriously injured as a result of building fires across the European Union. In 2022/23 in the UK alone, 14% of building fires were caused by Structures and Fittings within a building. Proportionally, 10% of casualties and 6% of deaths were caused by fire as a result of structures and fittings - this is 1% increase since 2010/2011* hence the importance of ensuring that all permanently installed cables are regulated to be as safe as possible to protect lives.

Ultimately the objective of CPR is to improve building safety by creating a common set of performance characteristics

at national level to ensure everyone in the supply chain complies with the same set of standards.

CPR is key for saving lives, helping to provide a safer environment by creating maximum timeframes for people to evacuate a building in the event of a fire.

**(Source: FIRE0604: Primary fire fatalities and casualties by material responsible for development of fire, Gov.uk, September 2023)*

WHICH PRODUCTS ARE IMPACTED?

Any cable which is deemed to be permanent once installed is within the scope of CPR, covering power, data and communications cables. In the case of

data and communications cables, copper, fibre, coax, and multi-conductor cables are covered, with the exception of patch leads.



WHO IS RESPONSIBLE?

It is the legal responsibility of each layer of the supply chain, from manufacturer through distribution, to specifier and installer of the products in scope to ensure market compliance with CPR.

These are summarised below:

Manufacturers

Ensure that products are tested and classified.

Ensure that the Declaration of Performance (DOP) is made available to the purchaser.

Ensure that the product label carries the appropriate CE-Mark to EN 50575 standard, Euroclass, DOP ID, Notified Body ID and Scheme of Assessment.

Distributors

Ensure that cable supplied is accompanied with all required regulatory documents.

Ensure not to supply any product that they deem not to conform to its declared performance.

Ensure that products they believe do not meet either/both CPR or country specific minimum Euroclass requirements are withdrawn from the market.

Ensure product traceability is transparent and documentation such as DOPs are easily and freely accessible via web sites and catalogues.

Alert authorities to any cables they believe are being sold in the market that do not meet either/both CPR or country specific minimum Euroclass requirements.

Store and transport cables as not to ruin conformity.

Specifiers

Ensure technical specifications and tenders clearly state the required minimum Euroclass appropriate to the country or vertical market minimum requirement, as determined by regulators, standards bodies, or client.

In the UK the minimum Euroclass is defined in BS6701:2016 +A1:2017 and is stated as Cca, S1b, d2, a2.

Installers

Ensure that all installed cable is correctly marked and accompanied with correct DOP.

Ensure technical specifications and tenders requirements are met, adhering to the minimum Euroclass appropriate to the country or vertical market minimum requirement, as determined by regulators, standards bodies, or client.

If in doubt, contact the distributor or manufacturer for advice.

CPR CHARACTERISTICS

The CPR update means performance tests on a cable's reaction to fire will now be performed on; flame spread, heat release, smoke production, flaming droplets and acidity. Cables will be categorised according to their performance level denoted by unique classification codes.

In general the higher the performance class the higher the cable cost, due to differences in materials used and cable design.



FLAMES



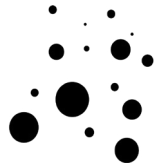
HEAT








SMOKE



DROPLETS



ACIDITY

	ADDITIONAL REQUIREMENTS	Aca	B1ca	B2ca*	Cca	Dca	Eca	Fca	
 FLAMES		Aca	B1ca	B2ca*	Cca	Dca	Eca	Fca	
 HEAT		Aca	B1ca	B2ca*	Cca	Dca	Eca	Fca	
 SMOKE	s			s1a	s1b	s2	**		
 DROPLETS	d			d1	d1	d2	**		
 ACIDITY	a			a1	a1	a2	**		
		FIRE RETARDANCE							
		HIGH						LOW	

The above categorisation elements will be specified to form a complete Euroclass reference for ordering and specification purposes, for example Cca, S1b, d1, a1.


* We do not expect that communication cables will ever be above B2ca

** No Requirement

Please see the Excel Encyclopaedia to explain additional requirements: s1,s2,s3 / d0,d1,d2 / a1,a2,a3

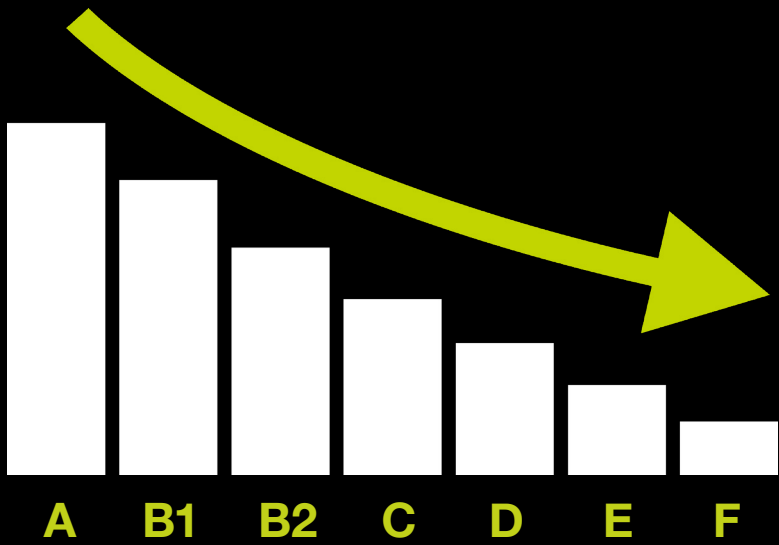
THE IMPORTANCE OF CHOOSING A EUROCLASS

When selecting a CPR-compliant cable, it is important to consider which Euroclass to select. These images show the difference between two differently classified cables during a 20 minute vertical test, which gives a strong indication of the retardance to fire and the impact that a fire could cause.

Time	Before Test	10 minutes	After test
Dca Example			
B2ca & Cca Example			

EUROCLASS CRITERIA

Euroclass (ca)	Classification Criteria	Additional Criteria	Attestation of conformity system
A	EN ISO 1716 Gross heat of combustion		1+ Initial type-testing and continuous surveillance with audit testing of samples by 3rd party certification body factory production control (FPC) by manufacturer
B1	EN 50399 Heat release Flame spread	Smoke production* (s1a, s1b, s2, s3) EN50399/EN61034-2	
B2		Acidity (a1, a2, a3) EN50574	
C		EN 50575 Flame propagation	
D		Flaming droplets (d0, d1, d2) EN 50399	
E	EN 50575 Flame propagation		4 Initial type testing and FPC by manufacturer
F			



EUROCLASS BY COUNTRY

It is the responsibility of each EU member state to define the recommended minimum Euroclass for installations within its market. Respective requirements could depend on the type of building and potential risk

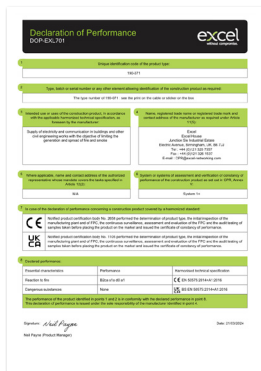
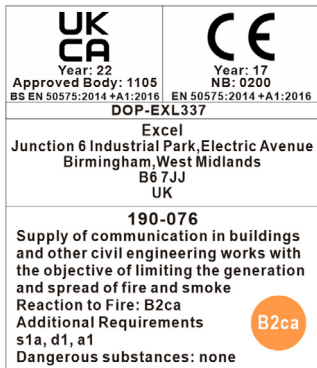
based on usage and occupancy. Each country, local client and end users will specify their Euroclass requirements based on this guidance and/or local standards or regulation.



PROVING COMPLIANCE

The regulation defines clear process and requirements for proof of compliance to a specific Euroclass. Once independent verification has been received an item specific, Declaration of Performance (DOP) is issued and approval given to label

product with specification, standards and DOP reference to enable traceability. All manufacturers and distributors MUST be able to provide this documentation, and provide correctly labelled product to comply.



PROVING COMPLIANCE

Both the CE and UKCA markings can be placed on a product so long as the relevant (EU or GB respectively) rules are met, neither prevents the other being clearly seen and the requirements of both GB and EU legislation are met. The table below illustrates the accepted markings for the GB market.

Type of good	Accepted marking or combination of markings*
Supplying goods (which are not qualifying Northern Ireland goods) to the market in Great Britain	
Construction product being supplied to the GB market until 30 June 2025	UKCA or CE or CE & UK(NI)
Construction product supplied to the GB market from 30 June 2025	UKCA





EXCEL NETWORKING SOLUTIONS' COMMITMENT

Our customers can rest assured that all products supplied by Excel into the EU market since July 2017 are CPR compliant.

We demonstrate this through certificates known as Declarations of Performance (DOPs), through labelling on product packaging or by product being placed on the market prior to this date.

When purchasing products in scope of CPR it is advisable to request suppliers to provide confirmation of compliance by means of a DOP or to demonstrate that the product was placed on the market prior to July 2017. Inability to meet either of these requests should cause alarm. Note that a DOP is a legal requirement if a product is claimed to meet, and have been

independently tested, to a specific Euroclass.

A product should not be purchased if this claim is made and a DOP cannot be provided with matching part code and description to the part in question.

Excel has adopted a transparent approach to providing the market with relevant information, updating its product specification sheets and web content to include clear references to the Euroclass that each product meets, and DOPs for each item.



SUPPORT

Our expert sales teams can give you a clear vision of the products you need with

the correct documentation, advice and installation tools.

CLARITY

A consistent labelling system across all Excel cabling products aim to satisfy the requirements of CPR by denoting ten specific parameters: the Excel logo and address details, the product part number, the UKCA and/or CE marking, the year of initial certification, the classification of reaction to fire, the reference

to the standard, the certification body, the ID of the Declaration of Performance and the intended use of the cable. This label layout is consistent across all infrastructure products supplied by Excel, showing all mandatory information making it easier to explain to customers.

READY

The Excel team were preparing for the introduction of CPR from early 2016. Fast forward to today, and Excel Networking is proud to support customers with readily available stock of unscreened and screened copper cables and multi and single mode

fibre optic cables, which are CPR-compliant as standard.

We have successfully delivered a number of projects worldwide that meet or exceed the minimum Cca requirements.

ON TIME

The BS6701:2016 +A1:2017 standard was published on 30th November 2017. Excel products across our range of copper and fibre solutions exceed the minimum requirement as we offer Cca, s1a, d1, a1 as

standard. It is important when considering vendor offerings to ensure this full Euroclass is met and all required paperwork and labelling is in order.

For more information, please contact us on 0121 326 7557 or via email at cpr@excel-networking.com.

TAKE THE EXCEL CHALLENGE

Why not take the Excel Challenge and consider asking suppliers and those offering to assist in writing tenders or specifications a few straightforward “yes/no” questions?

Do you have copper and fibre cabling that meets or exceeds Euroclass CCa, S1b, d2, a2 which is the minimum standard defined in BS6701:2016+A1:2017?

(Note - S1 is not compliant)

Excel offers Category 6 and 6_A screened and unscreened copper cables and tight buffered fibre optic cables that meet or exceed the above specification.

If you have products that meet this specification can you provide data sheets and the legally required Declaration of Performance (DOP) which is based upon the Notified body test report & certificate?

Excel data sheets and DOPs are freely available on our website.

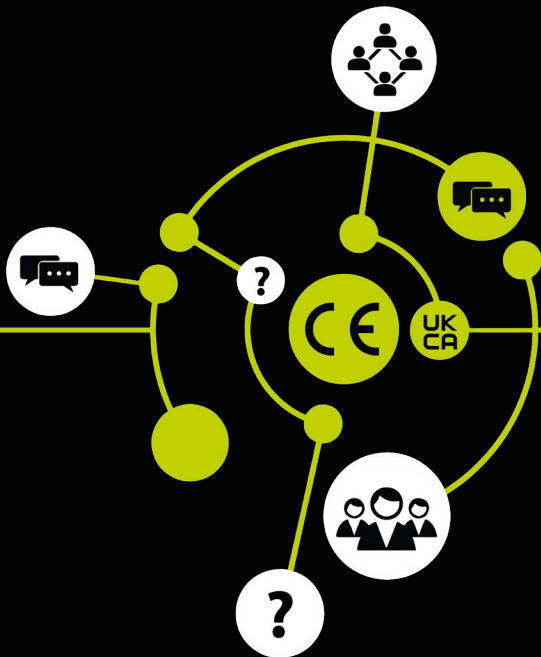
Do you have stock of cables that as minimum meet Cca, S1b, d2, a2?

(Note – Companies answering positively to Question 1 may not have invested in stocks, creating potential project delays)

Excel has large stocks of all products offered that meet or exceed the above specification and have successfully delivered a number of compliant projects with others in progress.

What uplift, if any, are you applying to tight buffered fibre optic cables that meet Cca, s1b, d2, a2 compared to previously supplied LSOH cables?

Excel offers – from stock – single and multimode tight buffered fibre cables which exceed the requirements of the standard with no cost uplift.



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