



# CONSTRUCTION PRODUCTS REGULATION AT RADIO FREQUENCY SYSTEMS

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## SAFETY IS KEY

### GENERAL INFORMATION

#### When does CPR apply?

- 1 July 2017

#### What does CPR imply?

- Cables placed on the market as construction products must comply with Regulation No. 305/2011 [1] of the European Union
- CPR regulates the requirements on cables in terms of their reaction to fire
- The regulations pertain to cables that are permanently installed in construction works (both above and below ground level)

#### What countries require CPR?

- All countries in the European Union are requested to convert into national regulations
- Other countries will adopt the regulations (example Switzerland)

#### Why is CPR required?

- The LSZH certification is no longer considered as comprehensive to measure the fire safety performance of cables.
- CPR provides a harmonized set of standards so product purchasers can easily confirm that cables meet the more stringent fire safety requirements in **European standard EN 50575**.

**RFS products will be classified according to the following indicators in compliance with the European Union CPR requirements.**

## CLASSIFICATION

CLASS	CLASSIFICATION CRITERIA					FIRE SAFETY
	Flame spread (EN 50399)	Total heat release	Peak heat release	Fire growth rate	Flame spread (EN 60332-1-2)	
<b>B2ca</b>	≤ 1,5m	≤ 15 MJ	≤ 30 kW	≤ 150 Ws-1	≤ 425 mm	<b>+++</b>
<b>Cca</b>	≤ 2,0m	≤ 30 MJ	≤ 40 kW	≤ 300 Ws-1		<b>++</b>
<b>Dca</b>		≤ 70MJ	≤ 400 kW	≤ 1300 Ws-1		<b>+</b>
<b>Eca</b>	Minimum fire performance classification					<b>--</b>
<b>Fca</b>	Not advisable for public places				> 425 mm	<b>---</b>

A and B1 are not applicable to LSZH data and telecommunication cables

## EURO CLASS REQUIRED FOR ENVIRONMENT

Environment	Country A	Country B	Country C
Airports	B2ca	B2ca	Cca
Hospitals	B2ca	B2ca	Cca
Commercial Premises	B2ca	Cca	Cca
Residential Building	Cca	Cca	Dca

Classification requirements subject to local law.

## EUROPEAN CLASS CODE LABELING EXAMPLES

<b>B2</b>	<b>ca</b>	<b>s1</b>	<b>d0</b>	<b>a1</b>
Fire Performance class	Application to cable	Smoke ratio	Droplets rating	Acidity rating



Smoke opacity		Droplets		Acidity	
<b>s1</b>		<b>d0</b>	/	<b>a1</b>	
<b>s2</b>		<b>d1</b>		<b>a2</b>	
<b>s3</b>		<b>d2</b>		<b>a3</b>	

Cable Type	CPR Class	Current Status	Product Availability
<b>CELLFLEX Feeder Cables</b>			
New family, CPR feeders			
LCFS114-50CPR	B2ca s1b d0 a1	confirmed	available now
LCF158-50CPR	Cca s1a d0 a1	confirmed	available now
Existing JFN feeder types			
LCF14-50JFN	B2ca s1a d1 a1	confirmed	available now
SCF38-50JFN	B2ca s1a d0 a1	confirmed	available now
SCF12-50JFN	B2ca s1a d0 a1	confirmed	available now
LCF12-50JFN	B2ca s1a d0 a1	confirmed	available now
LCF78-50JFNA	B2ca s1a d0 a1	confirmed	available now
LCFS114-50JFNA	B2ca s1b d2 a1	confirmed	available now
LCF158-50JFNA	Cca s1a d2 a1	confirmed	available now
Existing J feeder types			
All SCF/LCF jacket option «J»	F, not classified since none of the CPR classes «A» to «E» will be met	confirmed	available now



Cable Type	CPR Class	Current Status	Product Availability
<b>RADIAFLEX Radiating Cables</b>			
New family, CPR radiating cables			
RLK, ALF types 1/2"	B2ca s1a do a1	confirmed	available now
RLK, RLF, RAY types 7/8"	B2ca s1a d0 a1	confirmed	available now
RLK, RLF, RAY types 1-1/4"	B2ca s1b d0 a1	confirmed	available now
RLK, RLF, RAY types 1-5/8"	B2ca s1a d0 a1	confirmed	available now
Existing JFL radiating cables			
RLK, ALF types 1/2"	Cca s1a d0 a1	confirmed	available now
RSF12-50JFL	Cca s1a d2 a1	confirmed	available now
RLK, RLF, RAY types 7/8"	Dca s1b d2 a1	confirmed	available now
RLK, RLF, RAY types 1-1/4"	Dca s1 d2 a1	confirmed	available now
RLK, RLF, RAY types 1-5/8"	Cca s1b d1 a1	confirmed	available now
Existing JFN radiating cables			
RE60 radiating waveguide	Cca s1 d2 a1	confirmed	available now
RLK, ALF types 1/2"	Cca s1a d1 a1	confirmed	available now
RCF12-50JFN	Cca s1a d2 a1	confirmed	available now
RLK, RLF, RAY types 7/8"	Dca s1b d2 a1	confirmed	available now
RLK, RLF, RAY types 1-1/4"	Dca s1 d2 a1	confirmed	available now
RLK, RLF, RAY types 1-5/8"	Dca s2 d2 a1	confirmed	available now

