



# CONSTRUCTION PRODUCTS REGULATION AT RADIO FREQUENCY SYSTEMS

revision date 24/08/2017



## 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	Cca	B2ca	Cca
Hospitals	B2ca	B2ca	Cca
Commercial Premises	Cca	Cca	Dca
Residential Building	Fca	Dca	Eca

Classification requirements subject to local law.

## EUROPEAN CLASS CODE LABELING EXAMPLES

<b>B2</b>	<b>ca</b>	<b>s1</b>	<b>d1</b>	<b>a1</b>
Fire Performance class	Application to cable	Smoke ratio	Droplets rating	Acidity rating

e.g. our CPR feeders



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	Certificate Availability
<b>CELLFLEX Feeder Cables</b>				
New family, CPR feeders				
SCF12-50CPR	B2ca s1 d0 a1	confirmed	30 <sup>th</sup> June 2017	30 <sup>th</sup> June 2017
LCF12-50CPR	B2ca s1 d0 a1	confirmed	30 <sup>th</sup> June 2017	30 <sup>th</sup> June 2017
LCF78-50CPR	B2ca s1 d0 a1	confirmed	30 <sup>th</sup> June 2017	30 <sup>th</sup> June 2017
LCFS114-50CPR	B2ca s1 d0 a1	confirmed	30 <sup>th</sup> June 2017	30 <sup>th</sup> June 2017
LCF158-50CPR	Cca s1 d0 a1	confirmed	14 <sup>th</sup> July 2017	14 <sup>th</sup> July 2017
Existing JFN feeder types				
LCF14-50JFN	not yet defined (assumed: at least Cca s1 d0 a1)	tests in progress	now (*)	September 2017
SCF38-50JFN	not yet defined (assumed: at least Cca s1 d0 a1)	tests in progress	now (*)	September 2017
SCF12-50JFN	Cca s1 d0 a1	confirmed	now (*)	30 <sup>th</sup> June 2017
LCF12-50JFN	Cca s1 d0 a1	confirmed	now (*)	30 <sup>th</sup> June 2017
LCF78-50JFNA	Cca s1 d0 a1	confirmed	now (*)	30 <sup>th</sup> June 2017
LCFS114-50JFNA	not yet defined (assumed: at least Dca s1a d0 a1)	tests in progress	now (*)	October 2017
LCF158-50JFNA	Dca s2 d2 a1	confirmed	now (*)	14 <sup>th</sup> July 2017
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	now	n/a

(\*) CE marking for new produced cables as from 30th June 2017.  
Previously supplied cables will have the certification valid as well

Cable Type	CPR Class	Current Status	Product Availability	Certificate Availability
<b>RADIAFLEX Radiating Cables</b>				
New family, CPR radiating cables				
RLK, ALF fam. 1/2"	Cca s1 d0 a1	confirmed	14 <sup>th</sup> July 2017	14 <sup>th</sup> July 2017
RLK, RLF, RAY fam. 7/8"	Cca s1 d0 a1	confirmed	14 <sup>th</sup> July 2017	14 <sup>th</sup> July 2017
RLK, RLF, RAY fam. 1-1/4"	Cca s1 d0 a1	confirmed	14 <sup>th</sup> July 2017	14 <sup>th</sup> July 2017
RLK, RLF, RAY fam. 1-5/8"	Cca s1 d0 a1	confirmed	14 <sup>th</sup> July 2017	14 <sup>th</sup> July 2017
Existing JFL radiating cables				
RLK, ALF fam. 1/2"	not yet defined (assumed: at least Eca a1)	tests in progress	now (**)	during Q4
RLK, RLF, RAY fam. 7/8"	not yet defined (assumed: at least Eca a1)	tests in progress	now (**)	during Q4
RLK, RLF, RAY fam. 1-1/4"	not yet defined (assumed: at least Eca a1)	tests in progress	now (**)	during Q4
RLK, RLF, RAY fam. 1-5/8"	not yet defined (assumed: at least Eca a1)	tests in progress	now (**)	during Q4
Existing JFN radiating cables				
RLK, ALF fam. 1/2"	not yet defined (assumed: at least Eca a1)	tests in progress	now (**)	during Q4
RLK, RLF, RAY fam. 7/8"	not yet defined (assumed: at least Eca a1)	tests in progress	now (**)	during Q4
RLK, RLF, RAY fam. 1-1/4"	not yet defined (assumed: at least Eca a1)	tests in progress	now (**)	during Q4
RLK, RLF, RAY fam. 1-5/8"	not yet defined (assumed: at least Eca a1)	tests in progress	now (**)	during Q4

(\*\*) CE marking for new produced cables as from 30th June 2017 will show CPR class «F» only (untested).  
The test required for Eca is the IEC60332-1 which is met by the cables in any case.  
CPR class «E» or better will be shown after tests are completed by notified body.  
Previously supplied cables will have the certification valid as well.