

Construction Products Regulation

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Application of
Construction Products Regulation on Cables

Construction Products Regulation

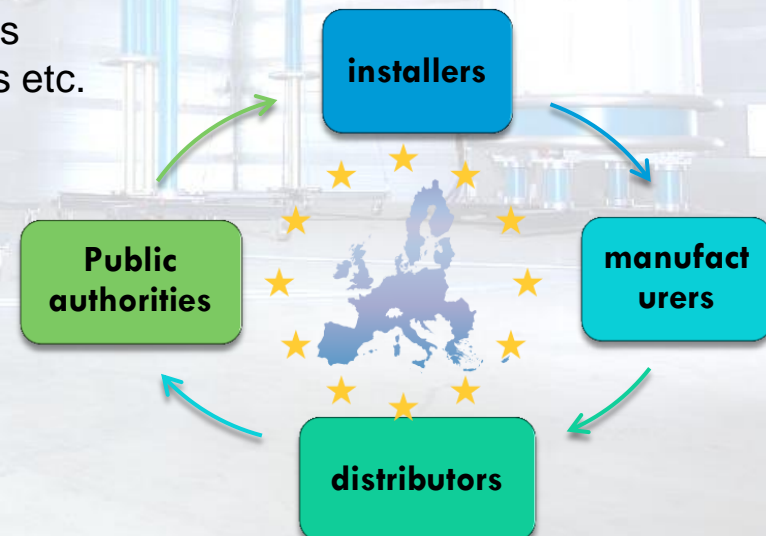
2

Construction Products Regulation No 305/2011

- The Regulation provides a common technical language to assess the performance of construction products. It ensures that reliable information is available to professionals, public authorities, and consumers, so they can compare the performance of products from different manufacturers in different countries.

Which products concerns:

- Cable products for fixed installation
- Products installed in construction projects within Europe: buildings, bridges, tunnels etc.
- For products which affect the total fire performance of the construction project



Construction Products Regulation

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□ Essential features of construction projects:

- Mechanical strength and stability
- Fire safety
- Health and environmental performance
- Safety and accessibility
- Noise protection
- Energy saving and heat conservation
- Sustainable use of natural resources



Construction Products Regulation

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- Fire behavior: burning behavior and possible contribution to the spread of the flame and its hazardous effects (smoke and hazardous gases which prevent the instant escape)
- Fire resistance: continuous operation for a certain time after a fire event



EN 50575: Fire behavior

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□ Which cables are involved?

- ✓ *General application cables*
- ✓ *Cables installed in construction projects within Europe: buildings, bridges, tunnels etc.*
- ✓ *Cables which subject to special performance during fire*

□ Cable categories:

- Power
- Control and telecom
- Fiber optics

□ Date of application of the Regulation: **1/7/2017**

~~Cat. A~~

~~Cat. B~~

~~Cat. C~~



Fire Classes

A_{ca}
B1_{ca}
B2_{ca}
C_{ca}
D_{ca}
E_{ca}
F_{ca}

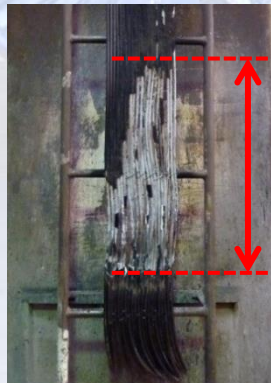


Testing for fire behavior

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EN 60332-3-22/-23/-24

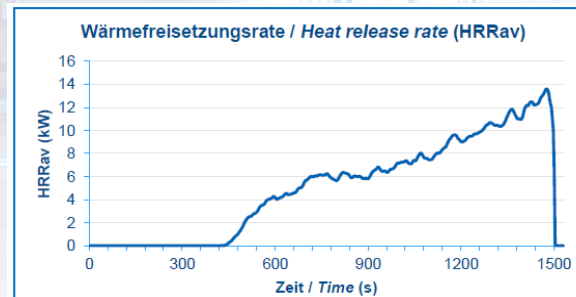
- Flame spread (m)



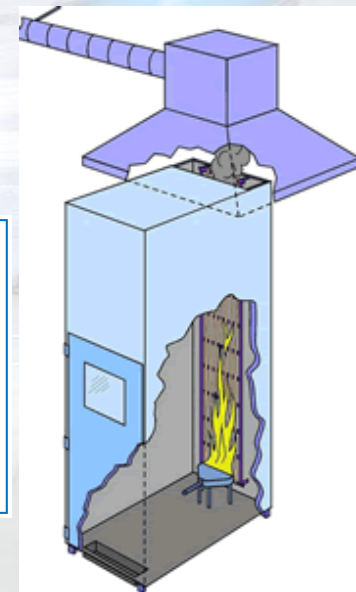
Burned length

EN 50399 (νέα δοκιμή)

- Flame spread (m)
- Emission analysis of gases
- Continuous recording of heat output (MJ, kW) and fire growth rate (FIGRA) (W/s)
- Continuous recording of smoke production (m^2 , m^2/s)
- Recording of flaming droplets



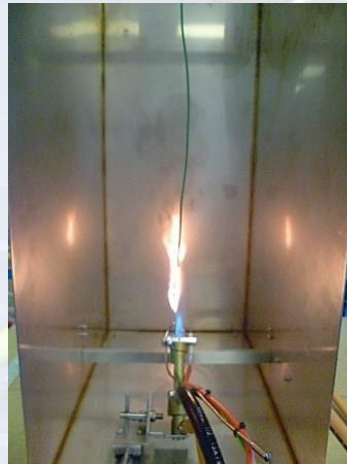
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Testing for fire behavior

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**EN 60332-1-2: simple
burning 1kW (Bunsen)**



**EN 61034-2: smoke
density**



**EN 60754-2:
Acidity of gases**



Cable classification

Additional classification

B2_{ca} - **s1a** - **a1** - **d0**

Class	Criteria	Test
A	max. calorific value	EN ISO 1716
B1	heat release	EN 50399*
B2	Fire spreading	EN 60332-1-2
C		
D		
E	Fire spreading	EN 60332-1-2
F		

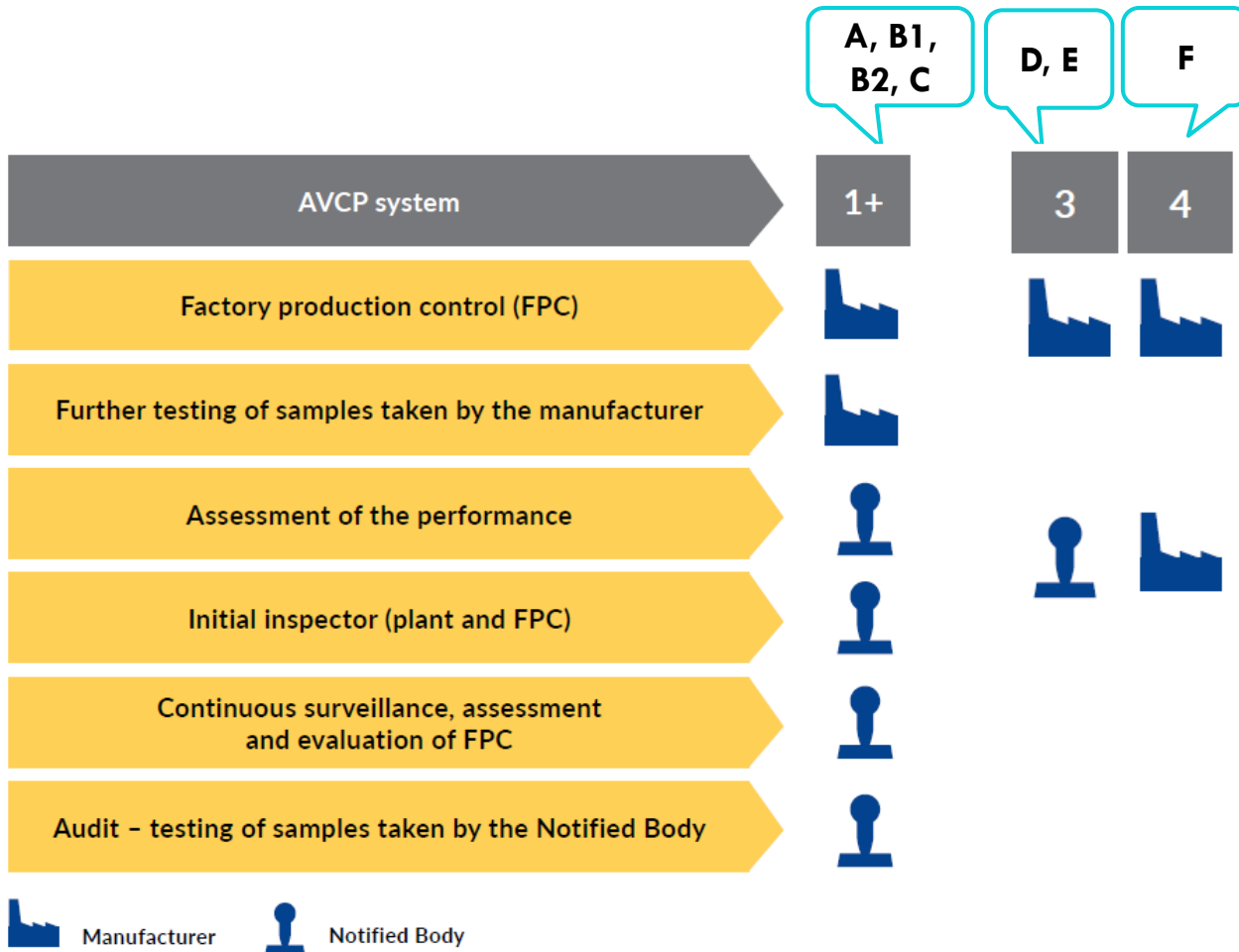
Smoke	Criteria	Test
s1 / s2 / s3	smoke production	EN 50399
s1a / s1b	light intensity reduction	EN 61034-2

Acidity gases	Criteria	Test
a1 / a2 / a3	pH and conductivity	EN 60754-2

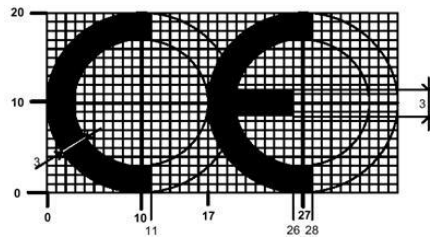
Flammable particles	Criteria	Test
d0 / d1 / d2	particles & durability	EN 50399

* B1: 30kW burner power

Assessment and Verification of Performance Stability (AVCP)



CE marking



It shall be shown in a clearly visible, legible and indelible form on the product label.

2 last digits of the year of the first affixing of the CE marking

Unique Product Identification Code

Use

ID of the notified body / laboratory (AVCP 1+, 3 only)

Name & manufacturer address

Report No. of the performance statement

Harmonized technical description

Declared performance

A, B1, B2, C, D, E

CE
XXXX
AnyCo Ltd, PO Box 21, B-1050, Brussels, Belgium
14
YYYY
EN 50575:2014
ZZZZ
Supply of electricity in buildings and other civil engineering works with the objective of limiting the generation and spread of fire and smoke
Reaction to Fire: B2 _{es} -s1,d1,a1
Dangerous substances: none

Declaration of Performance - DoP)

- ✓ Unique identification code for the product type
- ✓ Type / batch / row number
- ✓ Use
- ✓ Manufacturer name
- ✓ Statement of performance for each of the specific characteristics of the product with reference to the corresponding harmonized standard
- ✓ Performance Evaluation & Verification System
- ✓ Identification number of a notified body

HELLENIC CABLES S.A. **FULGOR S.A.** **ICME ECAB S.A.**
HELLENIC CABLE INDUSTRY S.A. HELLENIC CABLE INDUSTRY CABLE INDUSTRY

CABLE DATA:

Family 0000
Description e.g. XLPE/PVC/SWA/PVC

DECLARED PERFORMANCE:

- REACTION TO FIRE:
EN 50575:2014+A1:2016

Unique identification code	Class
N2XH	B2ca-s1, d1, a1

- SYSTEM OF ASSESSMENT AND VERIFICATION OF CONSTANCY OF PERFORMANCE (AVCP):
System 1+
- NOTIFIED BODY:
xxxxxxxxxxxxxxxxxxxxxxxx (xxxx)
- DANGEROUS SUBSTANCES:
NPD
- INTENDED USE:
Cable for general application in construction works subject to reaction to fire requirements. .
- MANUFACTURER:
Address

The performance of the products identified above is in conformity with the set of declared performances. This declaration of performance is issued in accordance with the regulation EU 305/2011 under the sole responsibility of the manufacturer identified above.

Signed for and on behalf of the manufacturer: