CPR CONSTRUCTION PRODUCTS REGULATION:

WHAT IS CPR? (EU Directive no. 305/2011)

CPR is a Directive that applies to all Member States in the European Community since July 2013. It concerns the "new era" of cables used for the transmission of energy and telecommunications, both copper and fiber optic, to be installed in buildings and civil engineering works, with a focus on fire performance.
CPR introduced a common technical language and shared evaluation methods that define uniform Euroclasses related to cable performance.

Product compliance with the Regulation is:
- standardized by EN50575 for reaction to fire requirements, test methods and cable evaluation;
- ensured by the DoP (Declaration of Performance) issued by each manufacturer to the user and the CE marking on products;
- implemented by designers, manufacturers and users in the selection of appropriate products to be used in specific applications.

CHARACTERISTICS OF CABLES SUBJECT TO THE CPR

In support of the requirements of: fire safety, hygiene, health and the environment, cables used in building works must ensure adequate reaction to fire and a specific release of hazardous substances.

Safety of buildings in case of fire is implemented through:
- limiting the generation and propagation of fire and smoke,
- allowing occupants the ability to leave the buildings in a timely manner
- and ensuring a high degree of safety for rescue teams.

Euroclassification criteria are expressed in a concise coding string, which details cable characteristics according to the following parameters:
- flame propagation classes, such as: B2ca, Cca, Dca, Eca, Fca;
- the density of the smoke, which varies in the parameters: s1 to s3;
- the flaming droplets that can spread the fire, which varies: d0 to d2
- the acidity of the smoke, which defines its danger to people and corrosiveness to property and varies: a1 to a3

The Euroclasses adopted in Italy are shown in the table below.

Before, during and after the fire

Classification, use and evaluation of performance, according to CPR - EU Directive 305/11 and Spec. EN 50575/14						
Euro-Class	$B2_{ca}$ s1a d1 a1	C_{ca} s1b d1 a1	C_{ca} s3 d1 a3	D_{ca} s1, d2, a1	E_{ca}	F_{ca}
Risk of Fire	high	middle-high	middle	middle-low	low	
Performance of fire reaction	★★★★	★★★★	★★★★	★★	★	
Installation	in a bundle				individually installed	OUTDOOR installation and use ONLY
Installation Place subject to each National specifications (acc. to DM139/15 in Italy)	under decision of the client or the designer	shopping centers hospitals cinemas schools offices > 25 people	residencial estate large offices workshops large storehouses garages		single residences small offices shops < 400 m^2 small storehouses	
DoP Declaration of Performance	yes					under decision of manufacturer
AVCP System Assessment Verification Constancy Performance system	1+			3		4

Certifying Bodies and Fire Reaction Report

The product classification process begins with the selection of a notified body. These institutions are accredited with the European Commission as a Notified Body and are included in NANDO (New Information Notified and Designated Information System). Cables supplied to the Notified Body are subjected to the relevant tests and, in case of positive feedback, they issue the "Fire reaction classification report for electrical cables".

The DoP and updating data sheets.

Supported by the positive feedback from the tests and the issuance of the Classification Report, we are in turn authorized to prepare the respective Declaration of Performance (DoP), whereby we take responsibility for declaring the reaction-to-fire class. See the example below. This document is public and may be requested from our company at any time.

To offer the service to anyone who needs it, this document is also already available on the company website. It is easy to find by navigating to the data sheet of each specific cable by clicking on the following symbol: cpr