



FIRE-SAFE CONNECTIONS

LSOH Cables: The Smart Choice for
Safety and Sustainability



The planet's pathways

DON'T PLAY
WITH FIRE –
PLAY SAFE

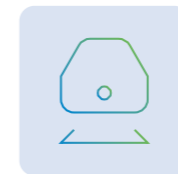
PRIORITIZING FIRE SAFETY

Our LSOH Cables for Public Spaces

Prysmian's Low Smoke Zero Halogen (LSOH) cables are specifically designed for use in public spaces where fire safety is of paramount importance. Their ability to minimize toxic smoke and gas build-up in confined, poorly ventilated areas makes them the top choice for various public spaces with high fire risks, including:



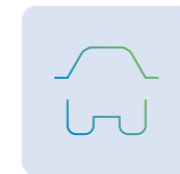
Aircraft



Trains



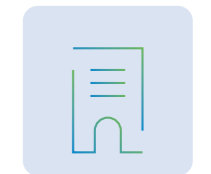
Ships &
Submarines



Railway, Road
& Tunnel
Systems



Nuclear
Power
Stations



Public
Buildings &
Large Arenas

Benefits



ZERO HALOGEN EMISSIONS

LSOH cables safeguard human health by preventing the release of hazardous halogens during combustion.



LOW SMOKE PRODUCTION

In the event of a fire, LSOH cables produce significantly less visible smoke compared to traditional PVC cables, enhancing visibility and facilitating evacuation routes.



REDUCED TOXIC GAS EMISSIONS

When exposed to fire, LSOH cables emit fewer toxic gases, reducing the risk to people nearby.



HIGH FIRE RESISTANCE

The cables are equipped with polyolefin-based thermoplastic jackets that provide high fire resistance.



EFFECTIVE FIRE RETARDATION

The flame-retardant materials in LSOH cables decompose in a way that absorbs energy and reduces the intensity of the fire. This process forms a charring layer that acts as a fire barrier.

**IN A FIRE, LSOH MAKES THE
DIFFERENCE – BECAUSE EVERY
SECOND COUNTS.**

COMPLIANCE GUARANTEED

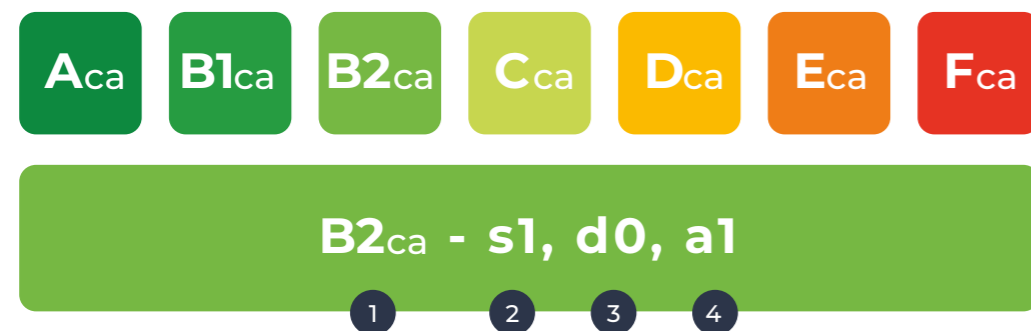
CPR Classification and Fire Performance

CPR – REGULATING FIRE SAFETY

Since 2017, cables for fixed installations in buildings must comply with the Construction Products Regulation (CPR) and be CE marked according to EN 50575. This regulation aims to enhance safety by ensuring cables meet fire resistance standards. Our cables are fully compliant with European CPR requirements, each with a Declaration of Performance (DoP) and CE marking, confirming compliance with fire resistance regulations set out in the EN 50575 standard.

CLASSIFICATIONS

There are seven fire performance classes based on heat release and flame spread. Additional criteria for classes B1ca, B2ca, Cca, and Dca include smoke emissions, flame droplets, and acidity.



- 1 **CPR CLASSIFICATION**
Fire Performance Class
- 2 **SMOKE PRODUCTION** (EN 61034-2)
 - s1 Low smoke emission
 - s1a s1 with > 80 % emission
 - s1b s1 with > 60 % > 80 % emission
 - s2 Medium smoke emission
 - s3 None of the above
- 3 **FLAME DROPLETS** (EN 50399)
 - d0 No flammable drops/particles
 - d1 10 sec. flammable drops/particles
 - d2 None of the above
- 4 **ACIDITY** (EN 60754-2)
 - a1 Low acidity < 2.5 µS/mm, pH > 4.3
 - a2 Acidity < 10 µS/mm, pH > 4.3
 - a3 None of the above

WORKABILITY

Ensuring Seamless Installation and Performance

In today's fast-paced world, efficient and reliable cable performance is essential across various industries, from telecommunications to energy distribution. Beyond technical specifications, a key factor to consider is **workability**. This refers to cable stripability, handling and surface quality and it plays a critical role in ensuring seamless installation. Here, the **Prysmian Workability Index (PWI)** offers a clear and practical rating system to help you make informed decisions.

PWI

The Prysmian Workability Index (PWI): A Clear Rating System

The PWI is calculated by adding up the scores for each of the three factors. A higher PWI score indicates a higher quality cable that is easier to work with and is less likely to cause problems during installation.

STRIPABILITY (S)

Score 1-3 Points

Stripability refers to how easily you peel off a cable, leaving the conductor clean and undamaged. This is important for proper installation and maintenance to avoid harming the wire.

HANDLING (H)

Score 1-3 Points

This refers to how easy the cable is to work with during installation. Flexibility, weight, and bend radius determine how easily installers can position and route the cable without encountering physical constraints or undue effort.

FRICTION (F)

Score 1-3 Points

Friction refers to the outer texture. A smoother surface reduces friction, making it easier to pull the cable through narrow conduits without snagging or damage.

THE GREENER, THE BETTER - RECOGNISE THE HIGHEST PWI BY THE COLOUR

BASIC

Fundamental workability for simpler applications.

STANDARD

Balanced performance and workability for a wide range of applications.

PRO

Superior workability with effortless handling, stripability, and performance for demanding applications.

LOW VOLTAGE FLEXIBLE CABLES

Versatile Solutions for Various Applications

LOW VOLTAGE HALOGEN-FREE INSTALLATION CABLES



N2XH PRO B2ca s1a d1 a1

These cables with copper conductors are Low Smoke Zero Halogen (LSOH), recommended for fixed installations in public buildings, industrial complexes and everywhere where people safety is mandatory. **Also available in Dca Version.**



N2XCH

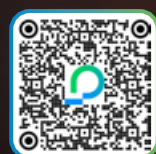
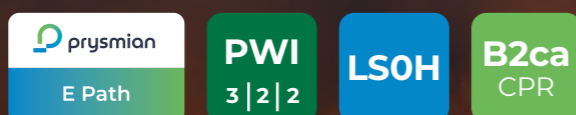
These cables are specifically designed with enhanced fire-resistant properties, tailored for critical environments like hospitals, schools, and similar structures. These cables are halogen-free and emit minimal smoke, ensuring safety during fire incidents.



NHXMH PRO B2ca s1a d1 a1

These cables are designed with improved fire-resistant qualities, suitable for building and industrial installations.

Also available in Dca Version.



DISCOVER ALL PRYSMIAN LOW VOLTAGE CABLES!

LOW VOLTAGE FLEXIBLE CABLES



H07ZZ-F PRO B2ca s1a d1 a1

High-performance, flexible power cable that meets the highest safety standards for fire, smoke and toxicity (LSOH). Designed for applications where human life and valuable equipment are at risk from fire hazards. Suited to installation both indoors and outdoors.



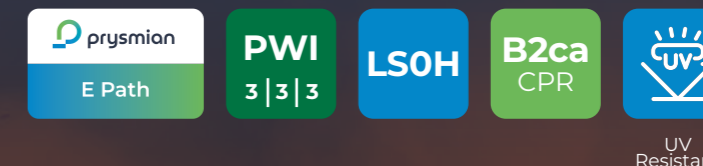
H07RN-F HF PRO

These Cables are suitable for use in various environments, especially for transportable motors or machines on construction sites or in agricultural settings, even in explosive or flammable atmospheres.



RZ1-K PRO B2ca s1a d1 a1

This cable is a low smoke halogen-free (LSOH) and easy stripable cable, ideal for public places like hospitals, schools, airports and similar. It helps to protect people and electronics from harmful or corrosive gasses in case of fire. **Also available in Dca Version.**

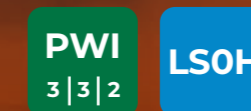


LOW VOLTAGE EARTHING CABLE



H07Z-R PRO

These cables are used for fixed protected installations, including lighting fittings, switch and control gears. They are suitable for environments where the risk of fire, smoke emission, and toxic smoke poses a threat to life and equipment.



SETTING NEW STANDARDS WITH E PATH

An invaluable business growth opportunity fueled by sustainability.



Prysmian proudly introduces E Path, a pioneering eco-labeling system tailored specifically for the cable industry. This innovative approach, built upon EU-ecolabel standards, sets a new benchmark for sustainability in cable manufacturing.



E Path uses measurable and known assessment criteria to summarize the contribution that cables can provide, in terms of climate change effect, paving the way for the cable industry to be included into eco or green labelling systems. Sustainability

is not just a goal, it's our commitment at Prysmian. We embed sustainability into every strand of our operations, striving not just for excellence but for sustainable excellence. It's who we are, it's what we do.

With sustainability rooted in our DNA each cable family has to pass a rating process based on the following criteria:



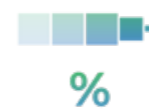
CARBON FOOTPRINT

Aimed at defining climate change impacts deriving from cables life cycle



NO TOXIC SUBSTANCES

Absence of CMR or toxic/hazardous to environment substances in the cable



PERFORMANCE EFFICIENCY

The higher the efficiency of the transmission, the more sustainable the performance



RECYCLING INPUT RATE

Presence of recycled materials in cable, both purchased and reused



ENVIRONMENTAL BENEFITS

Low carbon products (including cables used for green energy sources), CPR compliant products



RECYCLABILITY / CIRCULARITY

Presence of potentially recyclable material, possibility to reclaim/recover

THE WORLD LEADER IN ENERGY AND TELECOMS CABLE SYSTEMS

We provide high-quality cable solutions with advanced technology for lasting growth and profits. Our commitment to excellence and innovation ensures sustainable profitability. Additionally, we prioritize being a trusted partner and our values guide our actions. Prysmian, the global leader in the energy and telecom cables sector, scored 100 points in the 2023 Dow Jones Sustainability World Index in the environmental areas of Emissions, Resource Efficiency and Circularity, Waste and Water, reaffirming its focus and attention on these topics.



CARBON FOOTPRINT

Prysmian aims to reduce its environmental impact by minimizing emissions across operations, supply chains, and product lifecycles. This involves using renewable energy, energy efficient practices, and optimizing production processes. Prysmian also focuses on developing low-carbon solutions to support the global shift to sustainable energy and digitalization. By integrating sustainability into its business strategies, Prysmian aims to combat climate change while delivering quality products and services.



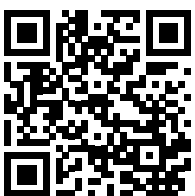
OUR COMMITMENT

Our commitment to a low-carbon future remains unwavering as we strive to create sustainable solutions while upholding quality standards. We prioritize sustainability and environmental protection in our daily operations, collaborating with local communities to ensure workplace safety and safeguard the areas we operate in.



OUR GOALS

Our goals focus on sustainability leadership, transitioning to a low-carbon world, and fostering an inclusive work environment. Prysmian's Climate Change Ambition aligns with the Paris Agreement, targeting emissions reduction and neutralization. Our Social Ambition aims to enhance diversity, equality, and inclusion by 2030, empowering women and prioritizing community engagement.



www.prysmian.com

Follow us

