

# Cabling solutions for the construction world

Not all cables are the same



# Linking the Future

As the worldwide leader in the cable industry, Prysmian Group believes in the effective, efficient and sustainable supply of energy and information as primary driver in the development of communities.

With this in mind, we provide major global organisations in many industries with best-in-class cable solutions, based on state-of-the-art technology. Through two renowned commercial brands - Prysmian and Draka - based in around 50 countries, we're constantly close to our customers, enabling them to further develop the world's energy and telecoms infrastructures, and achieve sustainable, profitable growth.

In our energy business, we design, produce, distribute and install cables and systems for the transmission and distribution of power at low, medium, high and extra-high voltages.

In telecoms, the Group is a leading manufacturer of all types of copper and fibre cables, system and accessories - covering voice, video and data transmission.

Drawing on over 130 years' experience and continuously investing in R&D, we apply excellence, understanding and integrity to everything we do, meeting and exceeding the precise needs of our customers across all continents, at the same time shaping the evolution of our industry.

## A truly global partner with local presence



The Group guarantees widespread geographical presence with a leading position in various local markets and regions, offering a global portfolio while maintaining local presence and customer proximity so as to be able to meet even the most specific customers' requirements. With more than 90 factories around the world and a capillary logistical distribution network, we supply products to any location.

# Customer centricity

Customer Centricity, or the ability to anticipate and meticulously satisfy customer needs, represents the essence of our approach to the market and is reflected in our constant presence, from product design through technical support to delivery. We develop customised solutions that meet specific standards and satisfy customers' needs, serving different segments and markets thanks to an organisational structure that enables the Prysmian Group to follow the customers locally even for major global projects.

# Leading R&D capabilities

Ongoing innovation is essential to customers and fundamental for the Prysmian Group's future growth. With 17 research & development Centres of Excellence across 10 countries, advanced proprietary technologies, more than 500 skilled professionals and over 5600 patents granted or filed, the company is equipped with best-in-class R&D capabilities. This helps to achieve not only better and lower-cost products, but also safer and more eco-efficient solutions ideal to tackle construction's world's new challenges.

# What links safety in construction to successful power supply?

Cable systems to help deliver energy throughout industrial and residential developments around the world.

From Singapore's stunning new Marina Bay Sands resort to residential properties around the world, Prysmian's low-voltage cables and building wires play a pivotal role in distributing power throughout premises of all types on every continent.

Working in support of both distributors and installers, our cables, notable for their high-performance, safety and compliance with strict international standards, are found at the heart of many state-of-the-art developments, like Wimbledon's Centre Court, the Burj Khalifa in Dubai – the world's tallest building – and Masdar City in the United Arab Emirates – the world's first carbon-neutral city.

A continuous commitment to driving innovation and raising safety standards means we allow our trade customers to differentiate themselves in their markets, passing on greater value to their customers and building a sustainable, profitable future for them.

# Application fields

## RESIDENTIAL



## NON RESIDENTIAL



## INFRASTRUCTURE



## INDUSTRIAL



- POWER SUPPLY
- EMERGENCY CIRCUITS
- CONNECTIONS
- MACHINERY (MOBILE OR NOT)
- SWITCHBOARD
- LIGHTING (INTERIOR/EXTERIOR)
- BRANCHES
- CONTROL/DATA
- ELECTRICAL APPLIANCES

# Not all cables Prysmian Group's key drivers to deliver

## People are your greatest assets

Almost **half of fires originate inside buildings**, where the increasing use of plastics has drastically reduced the average time from ignition of a fire to flashover.

**The main cause of injury and death in fires is incapacitation resulting from exposure to fire effluent** (smoke and gases) **caused by inappropriate materials.**

**Safer cables can help by preventing the propagation of a fire** from one room to adjacent rooms, **and produce as low amounts of opaque smoke and harmful emissions as possible.** Lower emissions of acids and smoke can also help to reduce panic and physical harm to people, and **are essential in aiding the location and use of emergency exits.** Cables are therefore a **key contributor to a safe and healthy built environment**, adding safety benefits and protecting goods.

### RELEVANT APPLICATIONS:

- hospitals and old people's homes
- schools and recreational buildings
- museums and historical buildings
- undergrounds and tunnels
- shopping centers
- railway stations and airports
- discotheques and nightclubs
- theatres and cinemas
- hotels and offices
- high-rise buildings

### OUR OFFER

- Low Smoke Zero Halogen (LSOH) cables as **Afumex® line, Firetuf line**, and **Hult** cables couple low flame spread and heat release with very low emissions of smoke and dangerous gases.

- Well-established Fire Resistant cable brands such as: **FP, FIRESTOP, AFUMEX® FIRST, RF 31-22, SIENOPYR, AFUMEX® FIRS** assure the continuity of power and/or signal supply in case of fire.

The Fire Resistant Cable Range includes armoured power cable solutions for life safety and **fire fighting systems** which either meet or exceed the 'standard' and 'enhanced' requirements.

### Some of the most prestigious constructions are the testimonials of our best in class cable applications:

- Metro Vienna
- Shard Tower (London)
- Isozaki Tower (Milan)
- Burj Khalifa (Dubai)
- Guggenheim Museum (Bilbao)
- Teatro Colón (Buenos Aires)
- Wimbledon Tennis Court
- Hamburg Airport
- UCL Cancer Institute (London)
- Metro Istanbul
- Tele2 Arena (Stockholm)

### BENEFITS

#### IN CASE OF FIRE:

- Life protection
- More time to escape
- Less hazardous environment for rescue teams
- Buildings protection

#### IN GENERAL:

- Safety increases the value of buildings and can reduce insurance costs

**SAFETY**

**SAVING TIME**

## Time is money

This is why Prysmian Group came up with instantly applicable solutions for real challenges that its clients face.

In order **to reduce the installation time and to facilitate the end users in the job they do every day**, various **surveys and studies** have been completed **to analyze installers' way of working in different countries.** Starting from the outcomes of these analysis and thanks to the enormous **effort produced by the R&D teams around the world**, various Prysmian Group innovative **Saving Time Solutions** are now available on the market.

Among these, **Iristech** and **Amico** technologies allow a quick and easy colour identification of the cable type and application.

**Afumex® Duo** is the LV Hybrid cable for individual branches that, by including optical fibre, is able to reach homes without power and communication bandwidth restrictions using a single cable.

With **Profipak** smart box is always possible to know how much cable is left to avoid shortage during work. Profipak box contains 3 cables in one instead of using 3 separate boxes, **VD BOX** instead has 4 cables in one. The **Trifil** solution offers you 3 cables blended into one representing the ideal choice for simplified residential wiring. These solutions make it easy to work with for one person and easy to take with you in one hand. The smart **Octabox** is very strong thanks to the impact-absorbing bumper edges, it is made of water resistant cardboard and it is easy to pull out the wire while the box stays on the ground until the last meters. These are just few examples of how **Prysmian Group can help reducing the time required for the installation and make the users' daily work easier.**

### OUR OFFER

- Easy to install solutions
- Smart Packaging
- Hybrid cables Energy + Data
- Easy cable identification solutions
- Wire in tube solutions
- Pre-connectorized solutions
- Torsion free cables
- Easy to strip
- Extra flexibility
- Extra slipping
- Easy termination
- Easy uncoiling
- Easy to fix

### BENEFITS

- Time saving
- Installation's total cost of ownership reduction through significant savings on labour and materials=Money saving
- Reduced installation effort
- Reduced pollution

are the same  
ver value into the construction world

### Secure your investment

It is important to remember that, whilst **cables represent a very small part of the total cost of a building** (typically <1%), this part is vital for the sound and durable operation of the electrical system.

**The cost difference between low quality and good quality cable is indeed very limited** and in the range of few percentage points, **even less if the total installation cost is considered, but cables' failure can generate high costs both in terms of possible damages for buildings and lives** (i.e in the event of fire), and lack of power or signal supply.

**Using sub-standard and low performance cables is therefore a risk** to the electrical system long term viability and will be very costly in terms of maintenance/replacement and efficiency. This emphasizes why **good quality components are the basis for a safe and durable installation which preserves the value of your investment.**

Prysmian Group assures the quality of its products by strict monitoring of every production stage, from the procurement of raw materials to finished product delivery. **On top of quality, the Group offers more than one century experience in the cable business, which means a unique expertise at your disposal.**

#### OUR OFFER

- Full range of quality cables
- More than one century experience in the cable industry
- Technical support and know-how
- Proactive sales and marketing approach
- Cable procurement and logistics know-how
- Copper management expertise
- Specification and application knowledge
- Additional services (i.e cable cutting, length management, drum management, recycling)

#### BENEFITS

- Sound and durable electrical system
- Respect of the rules
- Reduced maintenance cost
- Energy saving
- Risk prevention
- One stop shopping
- Unique domain expertise
- Extra services

QUALITY

SUSTAINABILITY

### We choose the green line

Encouraging eco-innovation and improving resource efficiency, these are the routes to a greener planet.

The Prysmian Group has progressed numerous innovative projects with a view to supplying end users with **efficient and functional products and solutions that have a low environmental impact.**

**Afumex® Green is the world's first ecological cable line for use in the building industry.** This cables, available in different voltage classes, replace part of the petroleum-derived polymer with green polyethylene, a 100% renewable material obtained from sugar cane. It is estimated that for each ton of green resin produced, up to 2.5 tons of carbon dioxide gas are captured and removed from the atmosphere.

On the other side **environmental impact studies** have been carried out **in relation to cables and accessories using the Life Cycle Assessment (LCA) approach.** These studies, primarily focused on the composition of the materials used and their disposal at end of life, **highlighted estimated reductions in CO<sub>2</sub> equivalent (up to -30%) and in the consumption of fossil resources (up to -40%) and water (up to -70/80%), compared with the production of standard cables for the same use.** With regard to procurement and logistics, **the Group continues to seek solutions that are ever more efficient, not least in environmental terms.**

#### OUR OFFER

- Green products
- Recycled packaging
- Green profile partnership
- Joint energy efficiency programmes
- Full life cycle assessment approach

#### BENEFITS

##### DIRECT

- Reduction of CO<sub>2</sub> equivalent direct emission
- Reduction of indirect emission
- Energy saving

##### INDIRECT

- Lower energy bills
- Lower taxes
- Increased value of buildings

# Prysmian group track record

## Some of our partners around the world:

ABM Rexel	DCHK	Fegime	Kamat	Selga
Ahlsell	Demo	Feszültség KFT	L&H	Senate
Al Zubair	Denge Energy	Findea	Lemvigh Müller	Sentor
Amara	ECS	Gargash	Loja Elétrica	SLO
ANEW	E.D.E.N. EL MAT	GC_Group	Marchiol	Socoda
Anixter	Edmundson	Gemcell	Matelec	Solar
Anmima	Eiffage	Goodtech	Mayer Electric	Sonepar
Argos	EK Sistemas	Gruppo Comet	Meinhert	Spie
Aspera	Elecnor	Gruppo Edif	MMEM	Storiel
Awazi	Electric Centre	Gruppo Megawatt	NCS	Strano
Bablana Trade	Electro- Stocks	Guerin	Newey and Eyre	SV Instalações
Barcella	ElectroLink	Hagard Hall	Nextera	Technishe Unie
BBC	Electrouniverso	Hagemeyer	Nortel	Texcan
Berggård Amundsen	Elektrokomplektas	Hispanofil	Obeta	Trielec
BP	Elektroskandia	I. Center	Onninen	Unielektro
Casa do Eletricista	Elenco	Ideal	Oosterberg	Verex- ELTO
Cencosud	Eletr Transol	Idee	Otra	Vinci/ Cegelec
Cobra	Elex	Imelco	Priority Wire	VLG RO
Comercial Elétrica Andra	Elfetex	Inabensa	Rexel	Wesco
Comoli e Ferrari	ELKOV	Ineo	Russkiy Svet	WF
Conelgro	Esvika	Jabu	Sacchi	Zilinskis
Corys	Everest	JA Russell	Sartra	
Cruzolin	Faber	Kalog	Schuurman	

## Success stories



### THE LIVES OF THESE PEOPLE DO NOT HANG BY A THREAD

Prysmian Group has supplied around 500 km of cables for **Tele2 Arena, a new, ultra-modern multi-purpose stadium in Stockholm**. The customer is one of Northern Europe's largest providers of electrical installations.

The Tele2 Arena opened in July 2013 after three years of work: football matches and concerts are just some of the events that are held here. The retractable roof makes it a year-round venue, taking only 20 minutes to create indoor conditions using the sliding roof. The arena has a capacity of 30,000 spectators at football matches and 40,000 for concerts. The stadium also houses commercial office space. The glass facade allows visitors to enjoy stunning views over Stockholm.

**Prysmian Group has supplied halogen-free cables for the stadium's power, telecommunication and lighting systems, selected by the customer as the latest technology to guarantee safety and environmental standards.**



### TAKING SAFETY TO NEW HEIGHTS

The Group has supplied approximately 350 km of high-tech fire-resistant cables for power distribution within the **Shard skyscraper, the tallest building in London and Western Europe**.

Construction of the Shard, a cone of light 310 metres and 87 floors tall completely covered with glass panels and designed by architect Renzo Piano in 2000, began in 2009. In 2011 the Prysmian Group was awarded the contract to supply Afumex® - Low Smoke Zero Halogen cables, FP600S cables and medium voltage power cables. The Afumex® family of cables combines low flame spread, in the event of fire, with very low emission of irritant and corrosive gases, ensuring more time to evacuate buildings and facilitating the work of rescue teams. Fire-resistant cables also guarantee maximum building safety since they are able to ensure the supply of power and operation of alarm systems during a fire.

**The Group's British subsidiary was chosen as global supplier of BASEC and LPCB certified cables and components, and of support and advice to the construction company on the best installation methods to use.**

# Linking safety in construction to successful power supply

## Contact us

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## Follow us on



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