

CENTRAL EASTERN EUROPE



Advanced Cable Technology



Prysmian
Group

Linking
the Future

Innovation defines us

To us, innovation means meeting the needs of our customers and communities by understanding their business drivers as quickly as they do.

Our ability to innovate is what makes us a market leader, with a track record of delivering products that are faster, smarter and more sustainable than before. In other words, products that are simply better to enable the **energy transition** and **power the digitalization** and **electrification** of our communities in a sustainable way.

OUR R&D CAPABILITIES AND RESOURCES



About **5,600** patents
covering the main
innovations



26
Research centres
900
Professionals



298
Product families
launched during
the year



Over **50**
Collaborations with research
centres and universities

OUR INNOVATION PILLARS

New products aligned with BUs' strategies
(P-Laser, ECOCABLE; etc.)

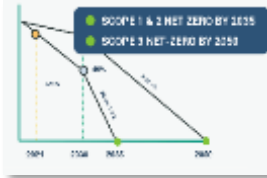
Electronics and Optical Sensing Solutions for Asset Monitoring
(PRY-CAM, Omniens)

Digital Culture & Digital Products
(Alesea, PRY-ID)

Innovation Accelerator & Start-ups
(Corporate Hangar)

Design for Sustainability

GROUP SUSTAINABILITY



Environment

Innovation

Social

Prysmian Group Design 4 Sustainability (D4S)

DRIVING CRITERIA

Carbon Footprint



Kg CO_{2,eq} referred to cable weight cradle to gate approach (only materials and process contribution)

Potential Recyclability



Weight of recyclable materials at EOL referred to cable weight (metals excluded)

Hazardous Substances



Substances of Very High Concern (SVHC) referred to total cable weight

Recycle Input Rate



Weight of Recycled material used for the cable production referred to the cable weight (both for plastics and metals)

Transmission Efficiency



Part of Joule losses during the cable lifetime referred to the transmitted power

Environmental Benefits



Related to the cable final application (low carbon products enabling energy transition) and safety in use

INNOVATION WORKSTREAMS

P-LASER



Recycle r-PE



Recycle Cu/Al



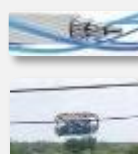
Elimination SF₆



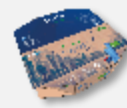
Alesea



E3X®



Green Packaging



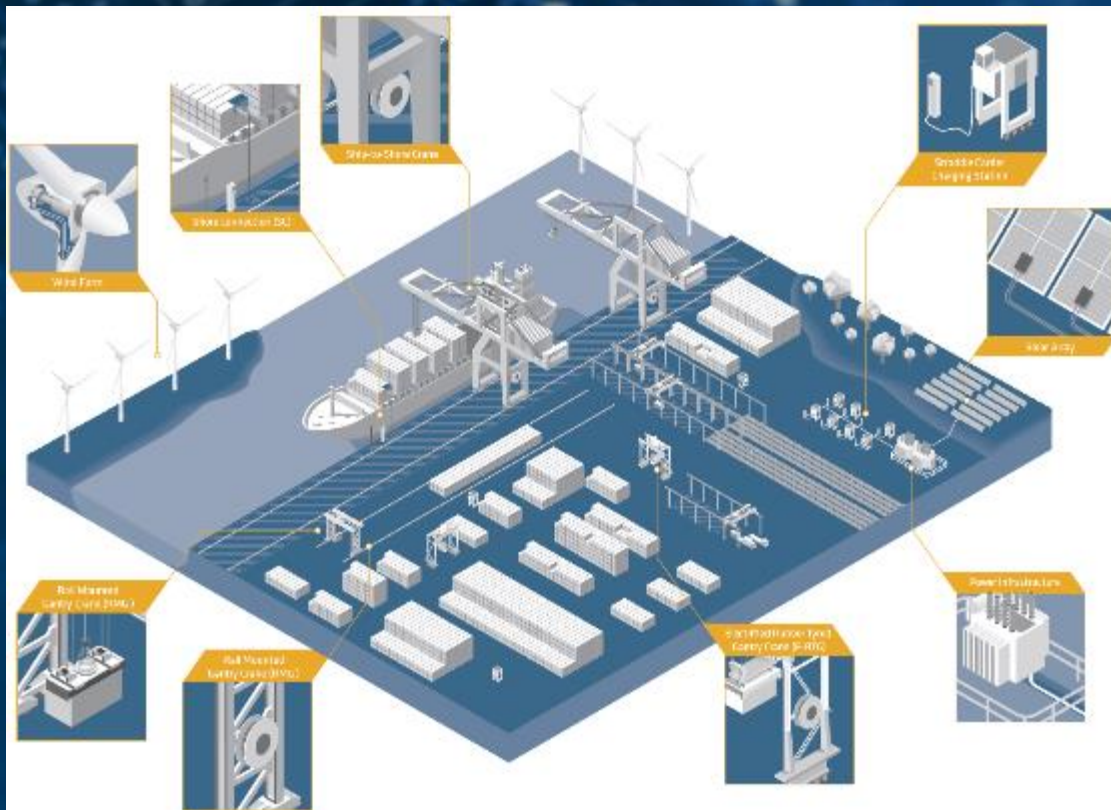
Bio Materials



Sirocco® Microduct



Green Portfolio



- • Shore Connection & Alternative Marine Power
- • MV and LV reeling cables for E-RTG
- • Green-labeled Crane Cables
- • EV charging station
- • Renewable energy generation
- • Eco-friendly power distribution & transmission

THE PRYSMIAN OFFER TO YOU PORT OPERATIONS



CHAIN

Resistant to the abrasion
RONDOFLEX(CHAIN)



BASKET

High speed, gravity fed basket
SPREADERFLEX



VERTICAL REELING

Tensile load, high speed, heavy weight
CORDAFLEX(SMK)-V



REELING CABLE

Tensile load, high speed
LV CORDAFLEX(SMK)
MV PROTOLON(SMK)



FESTOON

Flexible, high speed
RONDOFLEX

KPIs of port operators focused more than ever on productivity safety:

- Minimizing downtimes of crane operation
- Increasing throughput
- Ensuring faster and trouble-free container load/unload
- Achieving accident/fatality-free operation
- Reducing the number of people on site
- Increasing the level of automation
- Environmentally friendly port operation

What are the consequences for the main power supply cables?

- ✓ Faster – Greater – Broader and operating at specification limits means increased stress for the cable
- ✓ Shrinking tolerance to handle stress peaks caused by installation failures, incorrect machine set up or insufficient maintenance
- ✓ Lifetime shortage

CORDAFLEX Low Voltage Power Cable Family – The Real Deal



CORDAFLEX(SMK-200)



Made for reeling operations with **moderate** mechanical stresses

Flexible – Optimized – Easy – Robust - Reliable

CORDAFLEX(SMK)



Made for reeling operations with **high to highest** mechanical stresses

Super flexible – High Tension – Outstanding Performance



PROTOLON MV Cable Family – The Real Deal



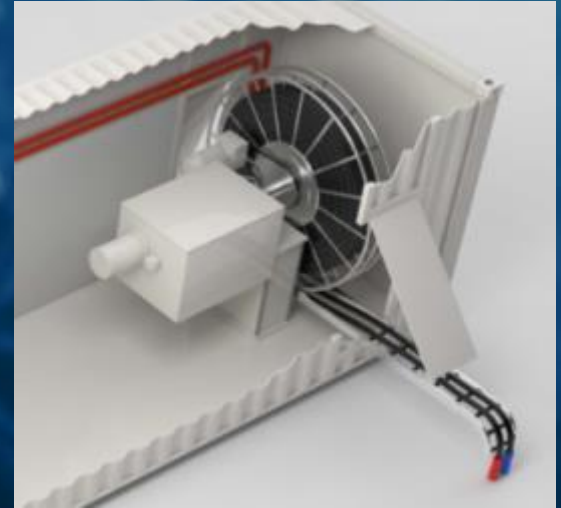
PROTOLON(SMK-200)	PROTOLON(SMK)	PROTOLON(SMK+HS)	PROTOLON(iQ)
 	 	 	 
<p>Made for reeling operations with moderate mechanical stresses</p>	<p>Made for reeling operations with high to highest mechanical stresses</p>	<p>Made for High speed reeling operations</p>	<p>Made for Permanent Monitoring of reeling operations</p>

Evolution of technical demands

Environmentally friendly feeding of docking vessels

Our PROTOLON Shore Connection cables will keep the ships sustainably energised.

As you sit at the dock of the bay, watching the tide roll away, our PROTOLON SC cable will work hard to keep the vessels energised from the electrical grid while berthing. Instead of keeping the diesel engines running, the vessels get more sustainable energy while saving on fuel and reducing the carbon footprints. A win-win for everyone. Just lay back and breathe easily.



- According to IEC/IEEE 80005-1
- Systeme available also with factory-fitted plugs



After Sales Service

Crimp



Fixed installation
sporadic movement

Cadweld



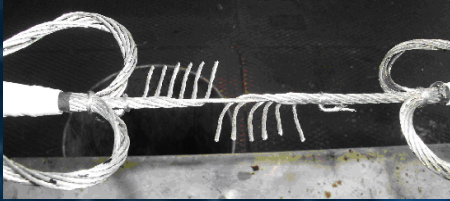
Simple application,
connect different core
sizes and core
constructions

Splice



**Permanent reeling
with long lifetime
expectations**

Repair technique



Energy



Fibre Optics



Definition:

Cable repair for special cables means the reestablishment of the full cable features **without** any restrictions neither for the mechanical nor for the electrical performance whilst keeping the diameter of the cable.

Helping to meet today's great challenges



The energy transition
From fossil fuels to renewable
sources for low carbon future



The digitalization of our
world Channelling and
transporting an explosion of big
data



The electrification of society
Enabling the application of electrical
power throughout the world



Global and flexible supply chain



Extended product range



Sustainable product innovation



Global solution provider



Advanced proprietary technologies

Thank you!



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