

# PowrNet®

600 Volt Secondary Network Cable



## Installed Where Maximum Reliability and Performance Are Critical.

PowrNet® cable was engineered for use in congested urban secondary network duct and buried systems in wet or dry locations where maximum reliability, ease of installation, and low-smoke cables are required

This unique cable offers the advantages of a track-resistant, low-smoke and reduced gas evolution design. These inherent performance characteristics are complemented by excellent abrasion and tear-resistant properties coupled with a low coefficient of friction, which allows for ease of pulling into existing duct systems.

PowrNet® network cables are manufactured to meet ANSI/NEMA WC70 ICEA S-95-658, Power Cables Rated 2000 Volts or Less for the Distribution of Electrical Energy.

### PowrNet® Performance Features

- > Installation Performance – Added Flexibility, Less Spring-Back, Low Coefficient of Friction, High Abuse- & Tear-Resistant
- > PowrNet® Environmental Performance – Fire- and Flame-Resistant, Oil- and Chemical-Resistant, and Low Generation of Combustible and Caustic Gases
- > Electrical & Physical Performance – High Dielectric Strength, High- and Low-Temperature Range, Superior Track Resistance



## PowrNet®, with its Low-Smoke, Zero-Halogen (LSZH) Jacket, is your Greener Choice for Modernizing the Secondary Network.

As energy consumption in densely populated urban areas continues to grow, existing power and secondary networks are required to operate under ever more severe conditions. Prysmian has stayed ahead of this trend by offering its highly engineered PowrNet® cable to meet the challenges of the most demanding urban environments. Designed to be installed either in ducts or directly buried, PowrNet® gives system engineers a proven choice to specify a highly reliable cable that is easy to install, with excellent electrical performance and track resistance, and provides the assurance of low-smoke and reduced gas emission in the event of a fire.

### Installation Performance

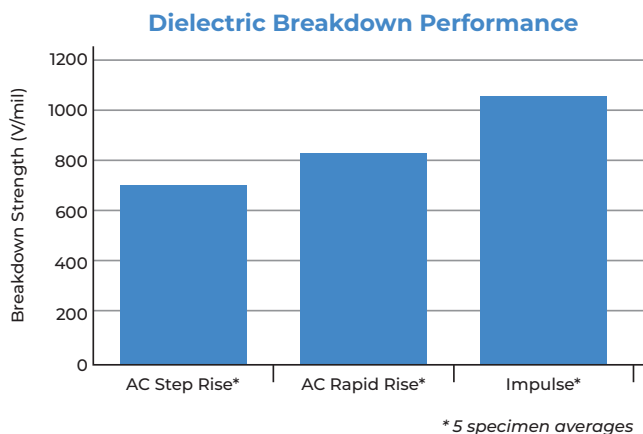
Because network cables may at times be installed in challenging conditions, Prysmian has designed PowrNet® to withstand the unique rigors of installation with a low coefficient of friction jacket, enhanced tear strength and exceptional cable flexibility.

### Environmental Performance

An aging urban network system required to meet modern needs with ever-increasing electrical loads challenges utility system engineers to find affordable, reliable and safe solutions. In response, PowrNet®'s low-smoke, zero-halogen jacket system reduces the amount of gas and smoke emission in the event of a fire. Its track-resistant design reduces the combustible gases created when operating in harsh environments where salts, oils and chemicals promote electrical leakage along the jacket surface. In addition, the flame-resistant properties of the PowrNet® cables minimize flame propagation. Prysmian has engineered PowrNet® cables for extreme environments where unparalleled performance and safety are critical and cable failures are not an option

### Electrical & Physical Performance

Increasing demand for energy consumption puts added stress on secondary networks already at capacity that can degrade the networks at a much faster rate than normal loads. Continuous improvements made to PowrNet<sup>®</sup> have extended the cable's maximum breakdown voltage, providing enhanced performance at maximum load.



PowrNet<sup>®</sup>'s proven performance as a superior secondary network cable is further demonstrated by the following qualification tests over and above the industry-standard requirements

### PowrNet<sup>®</sup> - Additional Qualification Tests

Installation Performance	Test Reference
Coefficient of Friction - Composite Cable	GCC In-house
Tear Resistance Test - Jacket	ANSI/ICEA T-37-581
Puncture Resistance - Composite Cable	ANSI/ICEA S-81-570
Abrasion Resistance - Composite Cable	ANSI/ICEA S-81-570
Electrical and Physical Performance	Test Reference
Rapid ac Voltage Rise - Insulation	EO-18
Step ac Voltage Withstand - Insulation	EO-18
Impulse Test - Composite Cable	EO-18
Roasting Test (260 °C Limiter) - Composite Cable	EO-6068
Bond Fire Test - Composite Cable	EO-6068
Cold Bend Withstand Test - Composite Cable	EO-18
6 Month AWA Test - Composite Cable	EO-18
Surface Resistivity - Insulation and Jacket	ANSI/ICEA T-37-581
Arrhenius Elongation - Insulation and Jacket	GCC In-house
Environmental Performance	Test Reference
Flame Testing - Composite Cable	IEEE 1202
Smoke and Toxicity - Composite Cable	IEEE 1202
Tracking and Erosion Resistance - Jacket	ASTM D2132
10 Cycle Oil Resistance - Jacket	EO-18
Lead TCLP Test - Composite Cable	ICP SW846