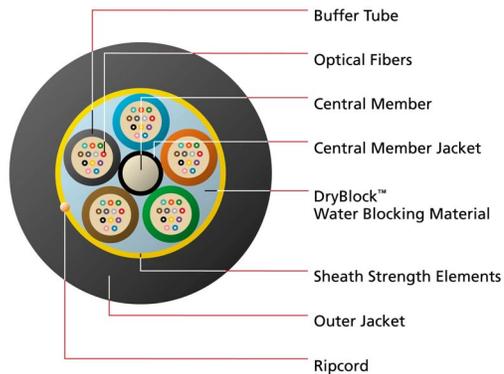


PowerGuide[®] ShortSpan

Single Jacket, All-Dielectric, Self-Supporting (ADSS) Aerial Loose Tube Fiber Optic Cable



Applications

- Aerial use, self-supporting without a separate messenger
- Ideal for cost-effective short spans (including distribution networks)
- Direct use in ducts, enabling simple aerial-to-duct transitions
- Smaller diameter cable for ease of handling
- DryBlock™ water-blocking technology for a more craft-friendly, jelly-free cable core - permitting quicker cable prep and splicing

Overview

OFS BrightWave Carrollton's PowerGuide[®] ShortSpan loose tube fiber optic cable offers a cost-effective solution for shorter cable spans (including distribution networks and other aerial applications) along with the reliability of our original PowerGuide[®] all-dielectric, self-supporting (ADSS) cable.

This cable is an ideal choice for spans ranging up to 764 feet (232 meters), depending on loading conditions, fiber counts, and clearance requirements.

Because PowerGuide ShortSpan offers one of the world's smallest ADSS cable diameters, it is lightweight and easy to handle, and saves time and money on installation. This cable's compact size and small bend radius also make it easier to use in aerial to underground installations.

PowerGuide ShortSpan is custom designed for your application and requires no pre-installed messenger. It can be quickly installed in a single pass using simple attachment hardware.

Design

OFS BrightWave Carrollton uses its field-proven and highly reliable loose tube design as the core of its PowerGuide ShortSpan cable. With this design, the optical fibers are placed within gel-filled buffer tubes to protect them from mechanical and environmental forces. The buffer tubes are then stranded around a dielectric central member, using the reverse oscillating lay (ROL) stranding technique. ROL makes it easy to "untwist" the buffer tubes and gain quick mid-span fiber access. The fibers and buffer tubes are color coded for easy identification.

Aramid strength elements are then placed over the cable core to achieve the strength required for your application. In the final step, a medium density polyethylene (MDPE) outer jacket is applied to complete the construction. This design ensures stable optical performance over a wide range of loads and temperatures and assures a long cable life by providing a stress-free environment for the fiber – even at full tensile load.

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Installation and Hardware

PowerGuide ShortSpan offers low-cost, one-step installation using simple attachment hardware. The all-dielectric cable construction means there's no need for expensive shielding or grounding of the cable.

PowerGuide ShortSpan is compatible with a complete range of hardware that can accommodate diverse installation conditions. OFS BrightWave Carrollton is fully equipped to serve as your hardware provider and be your "one-stop-shopping" service. Or, if you prefer, you may purchase the approved hardware separately.

We recommend the following hardware for use with PowerGuide ShortSpan:

- tangent supports
- dead-end assemblies
- down lead cushions

Features & Advantages

- Available with up to 72 fiber counts, offering an effective, economical alternative for short spans (excellent for distribution networks)
- Proven all-dielectric loose tube design for outstanding optical performance, reliability, and immunity to electro-magnetic fields
- Provides outstanding short-span capability (up to 764 feet or 232 meters)

- Small cable diameter for light weight and ease of handling and installation
- Designed for zero fiber strain at full in-service tensile load
- One-step installation with simple attachment hardware, providing valuable time and cost savings
- Single medium density polyethylene (MDPE) jacket makes cable easy to strip for fast, convenient cable preparation
- Cable's round profile minimizes wind and ice loading, reducing cable sag and tensile forces on towers and support hardware
- Up to 12 fibers per buffer tube permits a single cable diameter for 2 to 60 fibers, simplifying hardware selection and splicing
- Reverse oscillation lay buffer tube stranding technique allows quick mid-span fiber access
- Integrated, torque balanced aramid yarn strength elements for superior strength and cable stability
- Fully qualified in accordance with Telcordia Technologies, EIA/TIA, IEEE, and RUS standards
- ISO 9001, ISO 14001, and TL 9000 certified manufacturer



PowerGuide ShortSpan Performance Data

Parameters	OFS BrightWave Carrollton Specification	Typical Test Results	Test Performed
Low and High Temperature Bend	4 Turns @ -30°C & +60°C	Complies at 6 Turns @ -40°C & +70°C	
Impact Resistance	25 Impacts	Complies at 100 Impacts	FOTP-25
Compressive Strength	≥ 220 N/cm	≥ 220 N/cm	FOTP-41
Tensile Strength of Cable	No Fiber Strain @ Full In-Service Load	No Fiber Strain @ Full In-Service Load	FOTP-33
Cable Twist	10 Cycles	Complies at 100 Cycles	FOTP-85
Cable Cyclic Flex	25 Cycles	Complies at 100 Cycles	FOTP-104
Cable Freezing	No Attenuation Change	No Attenuation Change	FOTP-98
Water Penetration (GR-20)	No Leakage	No Leakage	FOTP-82
Filling Compound Flow	No Flow @ 80°C	No Flow @ 80°C	FOTP-81
Temperature Cycling	Operation: -40°C to +70°C	-40°C to +70°C	FOTP-3
	Installation: -30°C to +70°C Storage/Shipping: -40°C to +75°C	-30°C to +70°C -40°C to +75°C	
Cable Aging	+85°C 168 hr. exposure	+85°C 168 hr. exposure	FOTP-3
High Frequency (aeolian) Vibration	100 Million Vibration Cycles	No Mechanical Damage to Cable or Hardware	IEEE P1222
Low Frequency (galloping) Vibration	100 Thousand Vibration Cycles	No Mechanical Damage to Cable or Hardware	IEEE P1222

