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Product Datasheet

fiber optic cable: InAir ADSS 5kN Dry 0.465

Order information

Design	Part number
InAir ADSS 12 Ultra 5kN Dry 0.465	550590
InAir ADSS 24 Ultra 5kN Dry 0.465	550588
InAir ADSS 48 Ultra 5kN Dry 0.465	550591

Other fiber counts available upon request

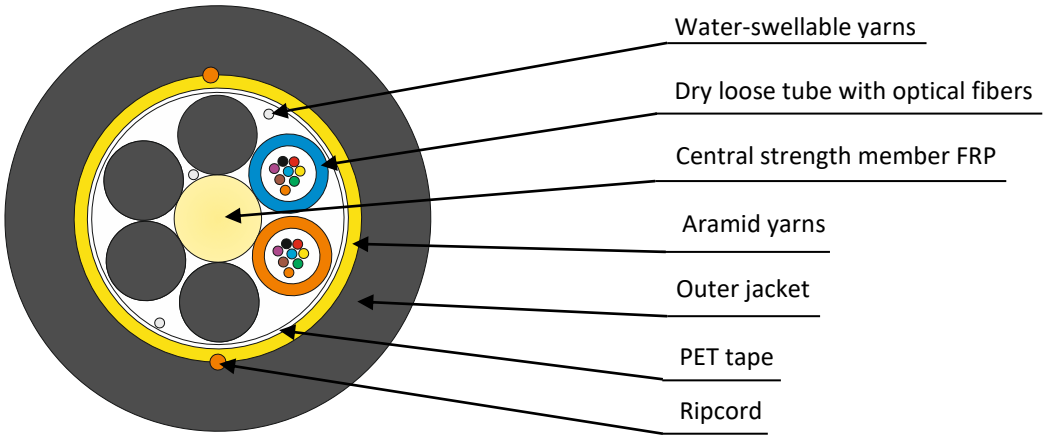
Typical application and features

- Aerial installation between poles and buildings
- Aerial installation on powerlines
- Aerial installation for communication lines
- Pulling into underground ducts and sewer pipes
- Installation along bridges, tunnels and other structures
- Installation into indoor/outdoor cable conduits and trays

All-dielectric design

UV-resistant

Design



Cable consists of stranded core with central strength member (FRP), dry loose tubes with optical fibers and PE fillers (black color). PET tape is laid over loose tubes layer. Stranded core is fixed by water-swellable yarns. Aramid yarns are laid over stranded core. Outer jacket is made of MDPE. Two ripcords are laid under outer jacket.

Optical fibers and loose tubes color identification:

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Slate	White	Red	Black	Yellow	Violet	Rose	Aqua

Other colors upon request

Cable marking example

Marking is made on each 2 feet of cable

00001 FT	= INCAB	OPTICAL CABLE =	PART NUMBER	InAir ADSS	48	Ultra	5kN	Dry	0.465		2022
1	2		3	4	5	6	7	8	9		10

1	Length marking unit	6	Fiber type
2	Manufacturer	7	Maximum rated design tension
3	Part number	8	Design configuration
4	Cable trade name	9	Diameter
5	Fiber count	10	Year of production

Additional information upon request. Marking can also be in meters

Design details

Fiber count		12	24	48
Number of loose tubes		1	2	4
Fibers per loose tube			12	
Number of PE fillers		5	4	2
Loose tube diameter	in (mm)		0.106 (2.7)	
Outer jacket thickness	in (mm)		0.065 (1.65)	
Cable diameter ± 0.008 (0.2)	in (mm)		0.465 (11.8)	
Cable weight	lb/ft (kg/km)		0.061 (91.4)	
Maximum rated design tension	lb (kN)		1124 (5.0)	
Zero fiber strain margin	lb (kN)		899 (4.0)	
Stringing tension (STT)	lb (kN)		281 (1.25)	
Rated breaking strength (RBS)	lb (kN)		1866 (8.3)	
Modulus of elasticity, initial	ksi (kN/ mm^2)		686 (4.73)	
Modulus of elasticity, final	ksi (kN/ mm^2)		741 (5.11)	
10-year modulus of elasticity, creep	ksi (kN/ mm^2)		535 (3.69)	
Cable cross-sectional area	in^2 (mm^2)		0.17 (109.8)	
Coefficient of thermal expansion, 10^{-6}	1/°F (1/°C)		9.81 (17.67)	

Other design upon request

Operating parameters

Operation temperature range	-40°F…+158°F	-40°C…+70°C
Installation temperature range	-22°F…+122°F	-30°C…+50°C
Transportation and storage temperature range	-58°F…+158°F	-50°C…+70°C
Minimum bending radius, with load	15 x cable diameter	
Minimum bending radius, with no load	10 x cable diameter	
Design life	25 years (per fiber supplier)	
Maximum space potential	12 kV	

Reel capacity

Standard maximum reel length*	20,000 ft	6,100 m

* Longer length may be possible

Performance standard

Complies with IEEE 1222-2019 requirements

Optical fiber

Fiber type	**«Ultra»**
Product name	Corning SMF 28®ULTRA
ITU-T Recommendation	G.652D + G.657.A1
Transmission Specifications	
Attenuation in the cable (dB/km)*:	
1550 nm wavelength (Typical** / Max.)	0.20 / 0.22

* Local attenuation discontinuities caused by cable winding on a reel are allowed

** Typical attenuation is the real level of optical attenuation of at least 90% fibers after cabling

Additional information about optical fiber at www.incabamerica.com

Reel packing and marking

Cables are supplied on non-returnable wooden reels. Reel diameter is not less than 40 diameters of the cable. Not less than 2 m of inside end of the cable is fixed to the reel flange. The cable ends are sealed with waterproof covers.
The label on the outer reel flange contains our trademark, cable type, customer's name and PO, reel number, production date, cable length, cable weight net/gross.
The following information is printed on the reel flange: manufacturer's name and website, rotation direction, cable end indication, shipping and handling summary, labels "Fragile" and "Handle with care".
Our cable passport shows: cable type, technical standard number, cable length, fiber type, fiber coloring, fibers per tube, tube identification coloring, final attenuation for all fibers, refractive index of the fiber, fiber manufacturer and production date.
Cable passport is affixed to the inner flange in a plastic bag. Additional information can be included on the passport upon request.