

FIBER OPTIC CABLES

ADSS Aerial Cable

Model [PSK-CAB-102](#) · PROSKY passive network infrastructure

All-Dielectric Self-Supporting aerial cable that spans pole and tower lines without a messenger wire. An aramid-yarn strength system sized per span class, plus a track-resistant sheath option, allow installation directly in energized distribution and transmission corridors.

Product overview

ADSS Aerial Cable is a fully dielectric outside-plant cable: single-mode G.652.D fibers in gel-filled loose tubes, stranded around an FRP central member, with the tensile load carried by a helically applied layer of aramid yarns beneath the outer sheath. Because the construction contains no metallic element at all, it needs no grounding or bonding and induces no currents — it can be installed on the same structures as energized conductors without outage windows.

The aramid strength system is engineered per span class and loading zone: yarn content, sheath thickness and sag-tension tables are matched to the design span, ice and wind loading of the route, with typical design spans from 100 m to 800 m. For corridors with high electric-field exposure, a track-resistant (AT) outer sheath resists dry-band arcing degradation; single-sheath builds cover shorter spans while double-sheath builds serve long spans and harsher environments.

In the network, ADSS is the workhorse of overhead routes: utility communication backbones along distribution lines, long-span river and valley crossings, and rural aerial FTTx feeders where trenching is impractical. It is installed with dedicated tension and suspension hardware and terminates into aerial closures or optical distribution frames at each end.

Key features

- › Fully dielectric design — no grounding, bonding or induced-current concerns
- › Aramid-yarn strength system engineered per span class and loading zone
- › Track-resistant (AT) sheath option for high electric-field corridors
- › Single- and double-sheath constructions covering typical design spans of 100–800 m
- › Gel-filled loose tubes with a fully water-blocked core
- › Lightweight construction reduces structural loading versus lashed or figure-8 cable
- › Installs alongside energized conductors, minimizing outage windows and permits

Applications

- › Overhead distribution-line corridors
- › Long-span pole routes and crossings
- › Utility communication backbones
- › Rural aerial FTTx feeder routes
- › Rapid-deployment network extensions

Network types: FTTH, Metro

Technical specifications

Typical values for this product class — request the certified PROSKY datasheet for guaranteed figures.

Optical (G.652.D fiber)	
Fiber type	Single-mode, ITU-T G.652.D
Attenuation @ 1310 nm	≤ 0.36 dB/km
Attenuation @ 1550 nm	≤ 0.22 dB/km
PMD link design value	≤ 0.2 ps/√km

Mechanical & span design	
Fiber count range	12 – 144
Design span classes	100 / 200 / 400 / 800 m (project-engineered)
Rated tensile strength	Sized to sag-tension tables per loading zone
Crush resistance	1,000 N / 100 mm (short-term)
Min bend radius	20 × OD dynamic / 10 × OD static

Environmental	
Operating temperature	–40 °C to +70 °C
Ice / wind loading	Engineered per route loading zone
Water penetration	3 m head / 24 h — no leakage (class test)
UV resistance	Carbon-black stabilized outer sheath

Construction & materials	
Strength members	Aramid yarns + central FRP
Buffer tubes	PBT, thixotropic gel filled
Outer sheath	PE, or track-resistant (AT) PE for high-field routes
Sheath configuration	Single or double sheath by span class
Metallic content	None — fully dielectric

Standards alignment

- › Designed to align with IEEE 1222 (ADSS cable)
- › Designed to align with ITU-T G.652.D (single-mode fiber)
- › Designed to align with IEC 60794-4-20 (aerial optical cables)
- › Designed to align with IEC 60794-1-2 (cable test methods)

Standards are named as design-alignment references for this product class, not as certifications held.

Packaging

Typical export packaging: wooden drums of 2,000–4,000 m with weatherproof lagging and sealed cable ends; sag-tension tables and matched suspension/tension hardware recommendations supplied per project. Exact drum lengths are confirmed per order.

Ordering & contact

Specify model PSK-CAB-102 with your required configuration (fiber count, length, termination or format options as applicable). For project engineering support, certified figures and commercial terms, contact PROSKY via proskytele.com.