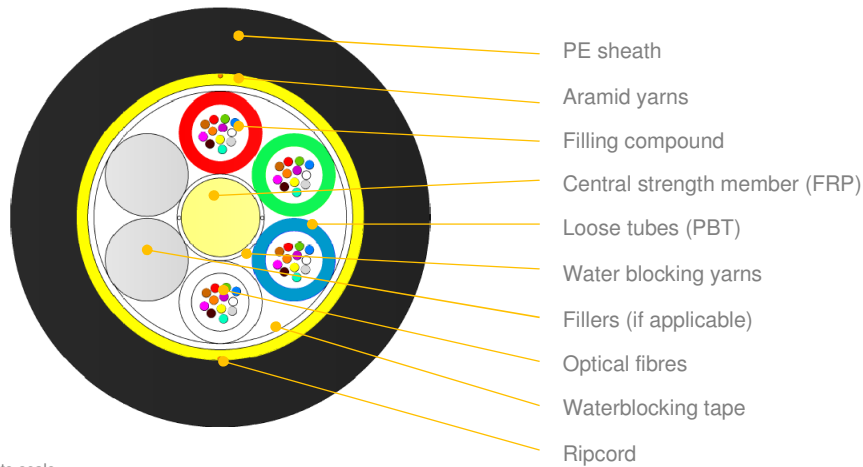


| | | |
|-----------|------------|----------|
| Type: | AERO-AS12 | REV: 2.3 |
| Issued: | 30/06/2014 | SK |
| Modified: | 29/12/2020 | KP |

Single jacket multitube self-supporting aerial cable AERO AS12



*schematic drawing, not to scale

APPLICATION:

For installation on poles or in ducts.
Fully dielectric cable
Self-supporting aerial cable with aramid reinforcement
For installation along power lines with an operation voltage below 150 kV and producing space potential below 4 kV.

DESIGN:

FRP strength and anti-buckling element
Dry yarns to prevent moisture into the cable
Loose tube (PBT Ø 2.5mm) with filling compound
6-12 elements SZ stranded cable core
Optical fibres
Fillers (if applicable)
Water-swellaable tape
Aramid yarns as strain relief and water absorbent
UV stabilized PE sheath (black by default, other colours available)
Nominal outer sheath thickness 1,6mm

CONFIGURATION:

| Variant | Quantity [pcs] | | | | Ø nominal (±5%) [mm] | Nominal weight (±10%) [kg/km] | Max allowed tension [N] | Max static tension [N] |
|------------|----------------|--------------------|-------------------|-----------------|----------------------------|--|----------------------------------|---------------------------------|
| | Fibres | Fibres per tube | Total elements | Active tubes | | | | |
| 1-6T x 2F | 2-12 | 2 | 6 | 1-6 | 11,7 | 105 | 12500 | 9000 |
| 1-6T x 4F | 4-24 | 4 | 6 | 1-6 | 11,7 | 105 | 12700 | 9000 |
| 1-6T x 6F | 6-36 | 6 | 6 | 1-6 | 11,7 | 106 | 12700 | 9000 |
| 1-6T x 8F | 8-48 | 8 | 6 | 1-6 | 11,7 | 106 | 12600 | 8500 |
| 1-6T x 12F | 12-72 | 12 | 6 | 1-6 | 11,8 | 110 | 12500 | 8000 |
| 8T x 6F | 48 | 8 | 8 | 8 | 13,3 | 142 | 12200 | 7800 |
| 8T x 12F | 96 | 12 | 8 | 8 | 13,3 | 143 | 12200 | 7800 |
| 12T x 12F | 144 | 12 | 12 | 12 | 16,3 | 208 | 12100 | 8000 |

Other fiber counts available on demand

MECHANICAL AND ENVIRONMENTAL CHARACTERISTICS

| | | |
|----------------------|-----------------------------------|--|
| Crush performance: | 3000 [N/10 cm] | IEC 60794-1-21-E3, $\Delta\alpha \leq 0,05$ dB, reversible |
| Bending radius: | Static: 15 x D Dynamic: 20 x D | IEC 60794-1-21-E6, $\Delta\alpha \leq 0,05$ dB, reversible |
| Water penetration: | 3[m] sample, 1[m] head, 24[h] | IEC 60794-1-22-F5, no leakage |
| Temperature range | | IEC 60794-1-22-F1, $\Delta\alpha \leq 0,05$ dB/km |
| Installation: | -15... +55 [°C] | |
| Operation: | -40... +70 [°C] | |
| Transport & Storage: | -40... +70 [°C] | |

| | | |
|-----------|------------|----------|
| Type: | AERO-AS12 | REV: 2.3 |
| Issued: | 30/06/2014 | SK |
| Modified: | 29/12/2020 | KP |

APPLICATION AND CABLE SPAN CHARACTERISTIC

6 tubes design

| Loading Conditions | Span | Installed Sag (2%) | Tension | Total sag | Horizontal sag | Vertical sag |
|--------------------|------|--------------------|---------|-----------|----------------|--------------|
| | [m] | [m] | [N] | [m] | [m] | [m] |
| NSC Light | 700 | 14 | 12100 | 32.5 | 31.0 | 9.6 |
| NSC Medium | 530 | 10.6 | 12200 | 26.4 | 16.2 | 20.9 |
| NSC Heavy | 310 | 6.2 | 12200 | 16.6 | 8.3 | 14.5 |

8 tubes design

| Loading Conditions | Span | Installed Sag (2%) | Tension | Total sag | Horizontal sag | Vertical sag |
|--------------------|------|--------------------|---------|-----------|----------------|--------------|
| | [m] | [m] | [N] | [m] | [m] | [m] |
| NSC Light | 620 | 12.4 | 12200 | 28.5 | 27.2 | 8.4 |
| NSC Medium | 490 | 9.8 | 12200 | 27 | 14.6 | 19.0 |
| NSC Heavy | 290 | 5.8 | 12200 | 15.3 | 7.5 | 13.4 |

12 tubes design

| Loading Conditions | Span | Installed Sag (2%) | Tension | Total sag | Horizontal sag | Vertical sag |
|--------------------|------|--------------------|---------|-----------|----------------|--------------|
| | [m] | [m] | [N] | [m] | [m] | [m] |
| NSC Light | 480 | 9.6 | 12100 | 21.0 | 19.9 | 6.6 |
| NSC Medium | 400 | 8 | 12200 | 18.5 | 11.0 | 14.9 |
| NSC Heavy | 250 | 5 | 12200 | 12.6 | 6.1 | 11.1 |

OPTICAL FIBRE AND LOOSE TUBES COLOUR IDENTIFICATION

For optical fibres and loose tube identification information please see DSH_Colors_CODE_XXXX document.

FIBRE PARAMETERS

For selected post-production optical fibres parameters please see DSH_OFPP document.

MARKING

The following print (white / hot foil) is applied at 1-meter intervals:

- Supplier: FIBRAIN
- Standard code (Product type, fibre type, fibre count)
- Year of manufacture: xxxx
- Length marking in meters
- Cable ID / Drum No

Example: FIBRAIN AERO AS012 T25 12F SM G652D 2T6F "YEAR OF MANUFACTURE" "LASER SYMBOL" "LENGTH MARKING" "BATCH NUMBER"

The accuracy of marking is $\pm 0.5\%$. Remarking is in accordance with Bellcore GR 20 and supersedes earlier markings. Occasional loss of marking is possible. Cables can be supplied with a range of single mode or multimode fibres and customized print.

PACKING

Cables will be shipped on disposable wooden or treated wooden drums. Both ends of the cable will be capped and accessible for testing. Rotation direction arrow will be marked on the drum together with identification information.

DELIVERY LENGTH

2000 – 8000 meters $\pm 5\%$, with possibility of supplying up to 5% of total contract quantity as short length cables which should be above 1000 meters long. Tolerance of 5 % of order quantity shall be allowed.

This document and the statements contained in it are not intended for customers within the meaning of the Civil Code. The information submitted in this document is to our knowledge and belief true at the time of issue, however, we do not assume any liability whatsoever for its accuracy, and completeness. This document is for informational purposes on an "as is" basis only and Fibrain reserves the right to change its contents at any time without prior notice. The specification cannot, in any case, be considered an offer within the meaning of the Civil Code and is not contractually valid unless specifically authorized by Fibrain. Before using this product, its buyer and/or user has to make sure that it is suitable for the intended use. All liability issues related to this product are subjected to the seller's separate Terms of Sale or the terms and conditions agreed with the Fibrain representative or distributor.