

## LLCAUOM<sub>3</sub>+

### Armored Multimode Cable with two steel wire - OM3

#### General standards

- General UniLoose Tube cable, outdoor, PE, metallic armoring, two steel wires, 50µm-OM3 — Corrugated steel tape armoring PE sheath
- Standards: EN 50173-1:2002, cat. OM3 - ISO/IEC 11801:2002 2<sup>nd</sup> ed., cat. OM3 - IEEE 802.3-2002

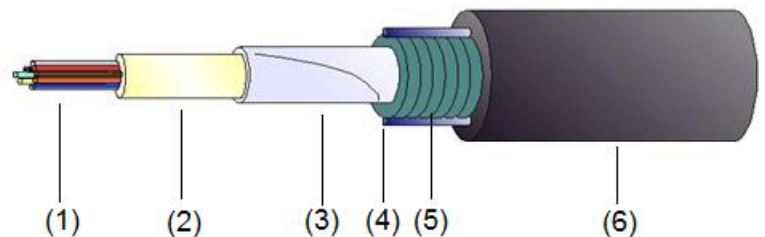


#### Application

Developed to be the ultimate option of the central-loose-tube outdoor cables family, featuring a metallic armoring. The plastic core with a jelly-filled helical coated channel, Spiral Space<sup>®</sup> design, contains up to 24 fibers, wrapped longitudinally with swelling tape, followed by an overlapping corrugated steel tape, and finally coated by a PE outer-sheath with two high tensile strength steel wires. Suitable for duct or direct burial installations. Also for arctic climate when the soil around the cable can be frozen; extra high crush strength.

#### CABLE DIAGRAMM CONSTRUCTION

- 1 – Optical Fibers: up to 24 x 50/125µm colors red, green, blue, yellow, white, grey, brown, violet, turquoise, black, orange, pink, (>12-fo colored synthetic binder)
- 2 – Central Plastic core (Jelly-Filled):
  - Diameter: 5,0mm (nominal)
  - Thickness: 0,5mm – 0,7mm (nominal)
  - Color: white
- 3 – Wrapping: swelling tape material
- 4 – Corrugated Steel Tape:
  - Thickness: 0,155mm (nominal)
  - Overlap: 2,0mm (nominal)
- 5 – Strength Members:
  - Material: steel wires
  - Diameter: 1,mm (nominal)
- 6 – PE outer-sheath



## 6 – Outer Sheath:

- Material: PE (Polyethylene) black
- Thickness: 2,4mm (nominal)
- Diameter: 9,5mm (nominal)

## MECHANICAL PERFORMANCE - CABLE

| Features          |        | Test Method               |                 |
|-------------------|--------|---------------------------|-----------------|
| WEIGHT            | kg/km  | 175                       | -               |
| TEMPERATURE RANGE | °C     | -10 up to +60             | IEC 60794-1-F1  |
| BENDING RADIUS    | mm     | oper.: 240 / inst.: 270   | IEC 60794-1-E11 |
| TENSILE STRENGTH  | N      | oper.: 3500 / inst.: 5000 | IEC 60794-1-E1  |
| CRUSH RESISTANCE  | N/10cm | 4000                      | IEC 60794-1-E3  |
| IMPACT RESISTANCE | Nm     | 25                        | IEC 60794-1-E4  |

## OPTICAL PERFORMANCE – FIBERS (acc. to ITU-T G.651, IEC60793-2-10 Cat. A1a, EN60793-2-10 Class A1a)

| Item  |          | Singlemode (ITU-T G.652.D)         | Test Method    |
|---|----------|------------------------------------|----------------|
| CORE DIAMETER                                 | µm       | 50 + 2,5                           | IEC 60793-1-20 |
| CLADDING DIAMETER                             | µm       | 125 ± 2                            | IEC 60793-1-20 |
| CLADDING NON-CIRCULARITY                      | %        | ≤1,0                               | IEC 60793-1-20 |
| CORE NON-CIRCULARITY                          | %        | ≤6,0                               | IEC 60793-1-20 |
| CORE/CLADDING CONCENTR.                       | µm       | ≤1,5                               | IEC 60793-1-20 |
| TYP. ATTENUATION @ 850nm                      | dB/km    | ≤3,0                               | IEC 60793-2-10 |
| TYP. ATTENUATION @ 1300nm                     | dB/km    | ≤1,0                               | IEC 60793-2-10 |
| BANDWIDTH @ 850nm                             | MHz * km | 1500                               | IEC 60793-2-10 |
| BANDWIDTH @ 1300nm                            | MHz * km | 500                                | IEC 60793-2-10 |
| EFF. MODAL BANDWIDTH @850 nm                  | MHz * km | 2000                               | IEC 60793-1-49 |
| PROOF STRESS LEVEL                            | GPa      | ≥ 0,7 ( ~ 1%)                      | IEC 60793-2-30 |
| STRIP FORCE (AVERAGE)                         | N        | 1,0 ≤ F <sub>ave.strip</sub> ≤ 5,0 | IEC 60793-2-32 |
| STRIP FORCE (PEAK)                            | N        | 1,3 ≤ F <sub>ave.strip</sub> ≤ 8,9 | IEC 60793-2-32 |
| ENTIRE RANGE OF SPEC'S FOR OM3 FIBER REFER TO |          | LL-F-008-OM3                       |                |

— On request, fibers featuring other than the above stated specifications can be quoted —

## OTHER CHARACTERISTICS

| Wavelength range (nm)   |   |
|-------------------------|---|
| Fiber requirements      | ISO/IEC 11801:2002 cat. OM3, EN50173-1:2002 cat. OM3, IEEE 802.3-2003, IEEE 802.3ae |
| Marking                 | ww / yyyy LightLine LL-CA-126+ no. fo. G50/125-OM3 metric                           |
| Typical delivery length | 4000m ± 300m per drum   |

