

Clearfield®

Non-Metallic Acoustic Sensing Cable



Application

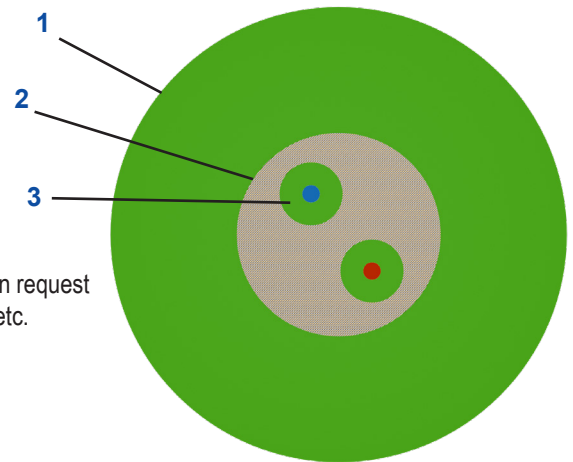
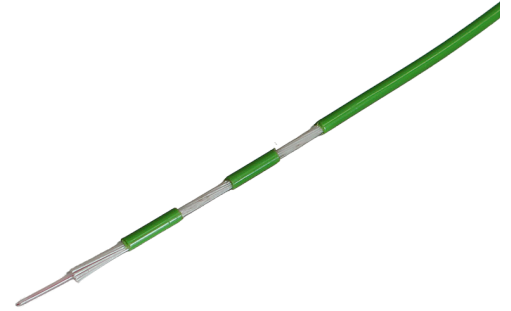
- Distributed acoustic sensing (DAS)
- Monitoring applications
- Sensing technology: Rayleigh scattering
- Harsh environment, outdoors
- Deployment directly in the ground, attached to structures or in conduits

Description

Distributed Fiber-Optic Acoustic Sensing (DFOAS) non-metallic cable with tight buffered optical fibers, aramid strain relief and PUR outer sheath

Construction

1. PUR outer sheath
 2. Aramid strain relief
 3. Tight-buffered and bend insensitive optical fibers
- Large diameter for good acoustic sensitivity
 - High tensile strength
 - Easy deployable
 - Compact design, high flexibility, small bending radius
 - Special abrasion resistant outer PUR sheath with acoustic interlocking system



Customization Options and Services

- Standard cable marking with meter marks, special labeling of outer sheath upon request
- Accessories such as loops, fan-outs, connectors, mounting brackets, anchors etc. available
- Custom fiber types

Technical Specifications

Non-Metallic Acoustic Sensing Cable	
Standard Optical Fiber	Single-mode optical fiber
Standards	Cable tests complying with IEC 60794-1-2
Jacket color	Green, similar to RAL 6018
Operating temperature	-40 °C ... +70 °C
Storage temperature	-40 °C ... +70 °C
Installation temperature	-10 °C ... +50 °C

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Technical Data at 20°C

Type	Max. nb. of fibers	Cable ø mm	Weight kg/km	Max. Crush res. N/cm	Max. tensile strength - Installation N	Max. tensile strength - Operation N
3.4	1	3.4	10	100	1000	500
5.0	2 (*)	5.0	23	150	1800	600
5.5	4 (*)	5.5	25	150	1800	600
6.0	2 (*)	6.0	31	450	2000	800
6.5	4 (*)	6.5	34	450	2000	800

(*) Please consult Clearfield for the maximum recommended fiber count, depending on your application.

Type	Min. Bending Radius With Tensile mm	Min. Bending Radius Without Tensile mm
All Types	15xD	10xD

Optical fiber data (cabled) at 20°C:

Fiber Type	Attenuation, dB/km 850 nm	Attenuation, dB/km 1300/1310 nm	Attenuation, dB/km 1550 nm
SMF	-	≤ 0.36	≤ 0.25