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Date: 18.10.2019 r.
Sign: PK-15/10/19

FIBRAIN Sp. z o.o.
36-062 Zaczernie 190F, Poland

OPINION

on FIBRAIN optical fiber cables

- Product name:* FIBRAIN optical fiber duct cables
- Product application:* To be laid in cable ducts, cable pipelines, technological ducts or direct buried
- Assessment criteria:*
- PN-EN 60794-1-1:2016 Optical fiber cables. Part 1-1: Generic specification. General.
 - PN-EN 60794-3-10:2015-03 Optical fibre cables. Part 3-10: Outdoor cables. Family specification for duct, directly buried or lashed aerial optical telecommunication cables.
 - PN-EN 60793-2-10:2018-03 Optical fibres. Part 2-10: Product specifications. Sectional specification for category A1 multimode fibres.
 - PN-EN IEC 60793-2-50:2019-05 Optical fibres. Part 2-50: Product specifications. Sectional specification for class B single-mode fibres (IEC 60793-2-50:2018).
 - PN-EN IEC 60793-1-40:2019-07 Optical fibres. Part 1-40: Attenuation measurement methods (IEC 60793-1-40:2019).
 - PN-EN 60332-1-2:2010/A11:2017-02 Tests on electric and optical fibre cables under fire conditions Test for vertical flame propagation for a single insulated wire or cable.
 - PN-EN 50575:2015-03 Power, control and communication cables. Cables for general applications in construction works subject to reaction to fire requirements.
 - ZN-OPL-005-1/14 Optotelecommunication cable lines. Part 1. Optical fibers. Requirements and tests.
 - ZN-OPL-005-2/17 Optotelecommunication cable lines. Part 2. Optical fiber cables Requirements and tests.
 - ZN-OPL-002/96 Optotelecommunication lines. Generic technical requirements.

Confirmation of technical compliance:

On a basis of supplied documents and results of tests performed herewith we confirm that products comply with requirements of standards given above and they may be installed in optotelecommunication networks.

General characteristics:

- Type (Model):
 - BDC-MI; BDC-MIB; BDC-MSA; BDC-C0; BDC-CI; BDC-CK; BDC-DI; BDC-DK; BDC-DX; DDC-MI; DDC-SI; DDC-MIB; DDC-M0; DDC-C0; DDC-CI; DSC-CI; MDC-FM; TDC-CI; SSC-CI; SSC-T30;
- Optical fiber type:
 - SMF 9/125 (ITU.T-G652D, G.657A1, G657A2,G657B3),
 - MMF 50/125 OM2, OM3, OM4, OM5, 62,5/125 OM1;
- Fiber count: 6 – 864;
- Design:
 - loose tube, construction xT4F, xT6F, xT8F, xT12F,xT24F,
 - with central member,
 - reinforced with glass or aramid yarns,
 - dry cable core,
 - single polyethylene jacket (PE),
 - single flame retardant non-halogen jacket (LSOH),
 - double polyethylene jacket (PE-PE),
 - double flame retardant non-halogen jacket (LSOH-LSOH),
 - single, two-layer polyethylene (PE) – polyamide (PA) jacket,
 - single, two-layer polyamide (PA) – polyethylene (PE) jacket,
 - double, three layer polyethylene (PE) and polyethylene (PE) – polyamide (PA) jacket,
 - steel tape,
 - Easy Section Module ESM®.

Date of validity of the opinion: 18.10.2021

DYREKTOR
Zakładu Doświadczalnego
Budownictwa Łączności Sp. z o.o.
inż. Piotr Kowalski