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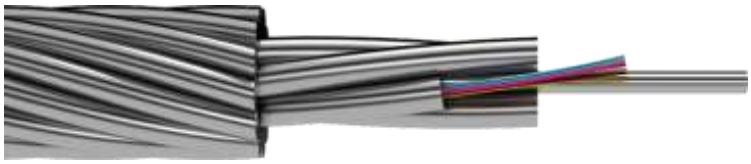
OPGW-C – Optical Ground Wearer Loose Tube in Layer



Application

The corrosion-resistant optical power ground wearer is designed to perform fiber optic lines for overhead power lines of 35 kV and above.

Technical characteristics

Parameter	Value
Number of optical fibers	Up to 288
Cable diameter, mm	11-21
Cable weight, kg/km	330-1530
Rated breaking strength (RBS), kN	47-275
Maximum rated design tension (MRDT), kN	28-165
Elasticity modulus, kN/mm2	70-160
Thermal withstand, kA2·s	5-550
S/c current for 1 sec, kA	4-30
Crushing force, kN/sm	1
Operating temperature	-60°C…+85°C
Installation temperature	-30°C…+50°C
Transportation and storage temperature	-60°C…+70°C
Minimum bending radius	Not less than 20 cable diameters
Factory length, km	4

Technical characteristics of optical fiber

Type of optical fiber	Corning SMF 28 Ultra	Corning SMF28e+BB
ITU-T recommendations	G.657A1 G.652D	G.657A1 G.652D
Deviation from the concentricity of the core, microns, not more	0,5	
Diameter of fiber sheath, microns	125±0,7	
Deviation from the roundness of the sheath,%, not more	0,7	
The diameter of the protective covering, microns	242±5	
Maximum attenuation at wavelength 1310 nm	0,32	0,34
Maximum attenuation at wavelength 1550 nm	0,18	0,20

Full name example

OPGW-C-24-11,2mm-25 kA2·s-1kN

Cable consist of the central strength element made of aluminum plated steel wire around which is twisted aluminum plated steel wire layer with a steel loose tube with freely laid fibers. The optical fibers in the loose tube are bundled. Each bundle of fibers has a winding colored synthetic thread. The free space is filled with a hydrophobic gel in the optical loose tube. One lay of reinforcing wires is spirally laid on top.