



# OPGW

Renka® SmartLITE™ OPGW cable is designed for optimum performance and ease of installation. SmartLITE™ cables are constructed with dispersion unshifted single mode fiber. These fibers are matched clad, consisting of a doped silica core surrounded by a concentric silica cladding. The stranded single mode matched clad fibers are designed for the transmission of large complicated data, video, and voice with very low transmission loss.

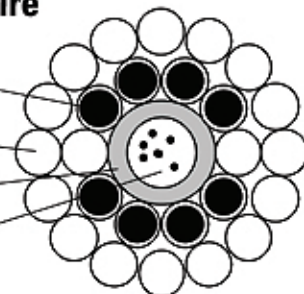
## Optical Power Ground Wire

Aluminum clad steel wire

Aluminum-alloy wire

Stainless Steel Tube

Optical Fiber



### OPGW Cable Design :

Central-Element: 5,8 mm filled Aluminium Tube

1st Layer: 2 x 2,5 mm Aldrey-Wires + 8 x 2,5 mm Aluminium-Clad-Steel

2nd Layer: 16 x 2,5 mm Aldrey-Wires

### Mechanical data, measurements and weight :

Diameter (approx.) :	15,8	mm
Weight of Cable (approx.) :	565	kg / km
Breaking Load (UTS):	83	kN
Rated Tensile Strength (RTS) :	75	kN
Modulus of elasticity :	89	kN/mm <sup>2</sup>
Cross-section ACS :	39	mm <sup>2</sup>
Cross-section AA :	88	mm <sup>2</sup>
Load-bearing cross-section :	128	mm <sup>2</sup>
Metallic cross-section :	143	mm <sup>2</sup>
I <sup>2</sup> t (T initial = 40°C) calc. with: 11,4 kA / 1 sec	130	kA <sup>2</sup> s
DC resistance (T = 20°C) :	0,29	Ω/km
Coefficient of linear expansion (10 <sup>-6</sup> ) :	17,4	1/K
Deflecting radius / Bending radius (min.) :	320 / 240	mm
Everyday stress (16 % RTS) :	94	N/mm <sup>2</sup>
Fiber Excess Length :	>= 3	promille
Max. attenuation SMF E9 (1310 nm / 1550 nm)	0,36 / 0,22	dB/km
Max. attenuation LEAF E10 (1550 nm)	0,25	dB/km
Maximum reel length :	6000	m

SmartLITE™ single mode fiber optic cable adheres to the following industry technical specifications, standards and references:

- Telcordia (Bellcore) GR-20
- ICEA-640
- RUS PE-90
- GTE Int'l
- ITU-T Recommendations G650 Series
- EC 793/EN 18800 Requirements
- ISO 9001
- TIA/EIA Quality Standards

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**Renka Product #**  
550 - Optical Power Ground Wire

**Total # of Fibers**  
006-288