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## OPGW

GROUND WIRE WITH  
DATA TRANSMISSION CAPACITY

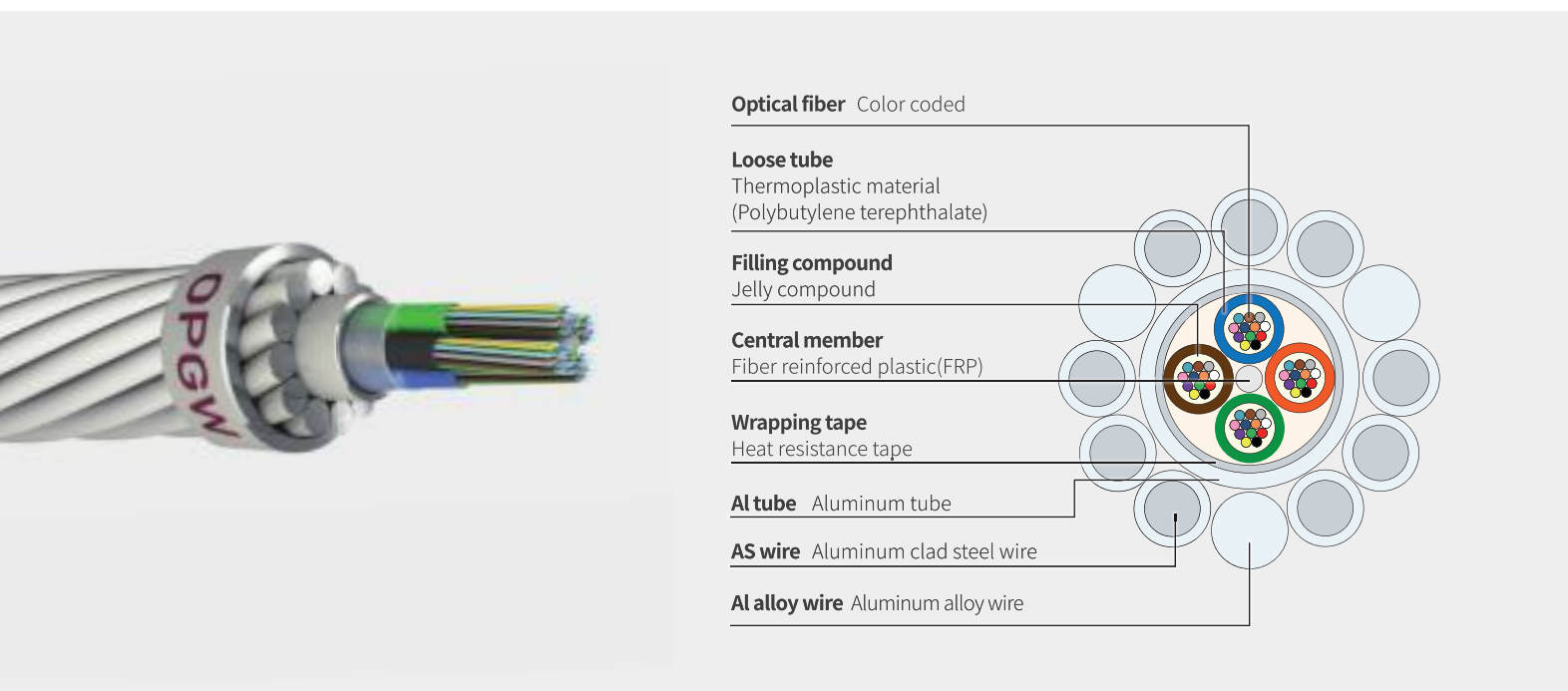
## High Reliability and Proven Experience

Taihan Fiberoptics offers an extensive selection of metallic fiber optic cables designed to protect overhead transmission lines from lightning strikes and to prevent fault currents (over voltages) and to create a path for communication through its optical fibers.

We have a wide range of OPGW cables and we can accommodate specific requirements of various clients and projects in order to provide customized bespoke design to suit customers' needs.



# OPGW NON-METALLIC LOOSE TUBE



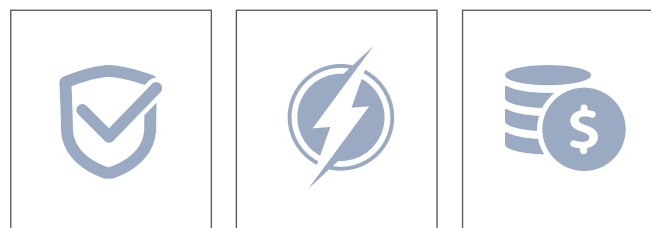
FIBERS	CONDUCTOR AREA		FAULT CURRENT (kA) <sup>2</sup> sec	OVERALL DIAMETER		APPROXIMATE WEIGHT		APPROXIMATE RBS	
	IN <sup>2</sup>	MM <sup>2</sup>		IN	MM	LBS/FT	KG/KM	LBS	KGF
(MAX)									
24	0.127	82	45	0.492	12.5	0.319	475	17,284	7,840
24	0.143	92	68	0.528	13.4	0.343	510	15,576	7,065
24	0.171	110	92	0.551	14.0	0.370	550	15,432	7,000
48	0.188	121	99	0.602	15.3	0.464	690	24,626	11,170
48	0.237	153	225	0.646	16.4	0.403	600	15,388	6,980
48	0.290	187	315	0.720	18.3	0.504	750	22,024	9,990
96	0.281	181	277	0.726	18.5	0.538	800	23,281	10,560
96	0.369	238	400	0.819	20.8	0.558	830	15,730	7,135
144	0.234	151	160	0.669	17.0	0.571	850	26,489	12,015
144	0.278	179	281	0.728	18.5	0.538	800	22,950	10,410

## Description

This versatile design combines easy splicing and fiber handling, high fiber capacity and extra fiber protection. It offers high tensile strength capacities and extra conductive area for fault currents.

This prototype optical core is composed of color coded optical thermoplastic tubes stranded or centralized in a central hermetically sealed aluminum pipe.

## Features



**Crush Resistance**  
Shield Wire

**Electrical Performance**  
Aluminum Pipe

**Cost Saving**  
Fast Splicing

## Standards & Certifications

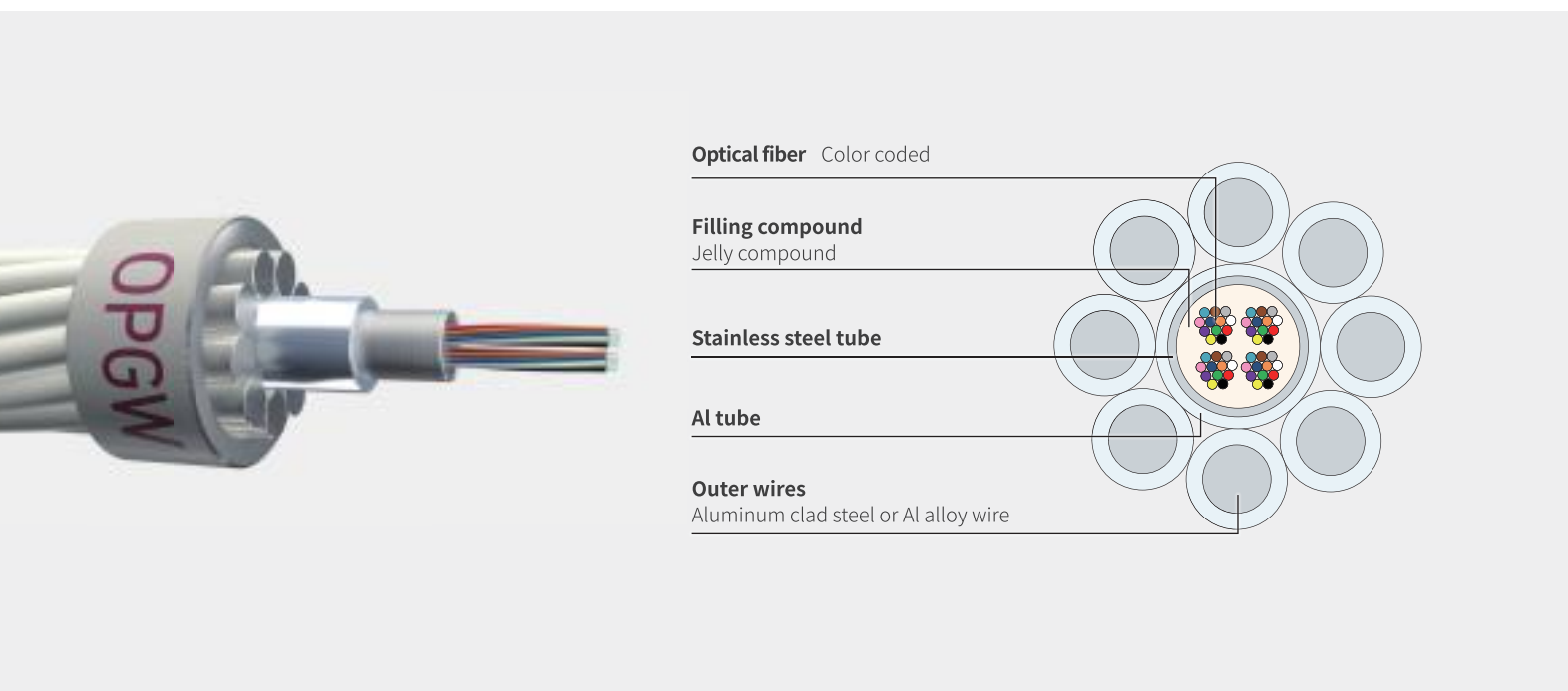
[ITU-T G 650. 652. 655] [IEC 60793] [TIA-598]

[IEEE 1138] [IEC 60794-4]

[ISO 9001, 14001] [OHSAS 18001]

- Fiber Capacity of up to 144F
- Easy fiber handling and splicing
- Excellent Corrosion Resistance
- Improved short circuit capacity
- SZ Core provides extra mechanical and thermal protection

# OPGW AL CLAD STAINLESS STEEL TUBE



**Optical fiber** Color coded

**Filling compound**  
Jelly compound

**Stainless steel tube**

**Al tube**

**Outer wires**  
Aluminum clad steel or Al alloy wire

FIBERS	CONDUCTOR AREA		FAULT CURRENT (kA) <sup>2</sup> sec	OVERALL DIAMETER		APPROXIMATE WEIGHT		APPROXIMATE RBS	
	IN <sup>2</sup>	MM <sup>2</sup>		IN	MM	LBS/FT	KG/KM	LBS	KGF
(MAX)									
12	0.099	64	22	0.417	10.6	0.262	390	11,607	5,265
12	0.113	73	30	0.445	11.3	0.292	435	15,730	7,135
24	0.098	63	18	0.417	10.6	0.269	400	11,905	5,400
24	0.110	71	27	0.437	11.1	0.286	425	15,785	7,160
24	0.127	82	40	0.476	12.1	0.343	510	21,572	9,785
48	0.154	99	68	0.524	13.3	0.370	550	18,387	8,340
48	0.178	115	68	0.559	14.2	0.390	580	17,527	7,950
48	0.191	123	87	0.571	14.5	0.403	600	15,730	7,135
72	0.222	143	169	0.614	15.6	0.383	570	13,933	6,320
96	0.225	145	118	0.634	16.1	0.470	700	23,369	10,600

## Description

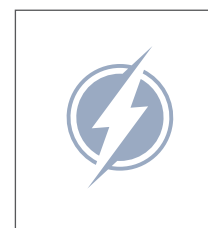
This excellent design combines strong protection to the optical fibers, reduced diameter options, medium to high fault current and tensile strength capacities.

This prototype optical core is composed of color coded optical fiber housed in a gel-filled stainless steel tube covered by an aluminum pipe.

## Features



**Crush Resistance**  
Shield Wire



**Electrical Performance**  
Aluminum Pipe



**Cost Saving**  
Fast Splicing

## Standards & Certifications

[ITU-T G 650. 652. 655] [IEC 60793] [TIA-598]

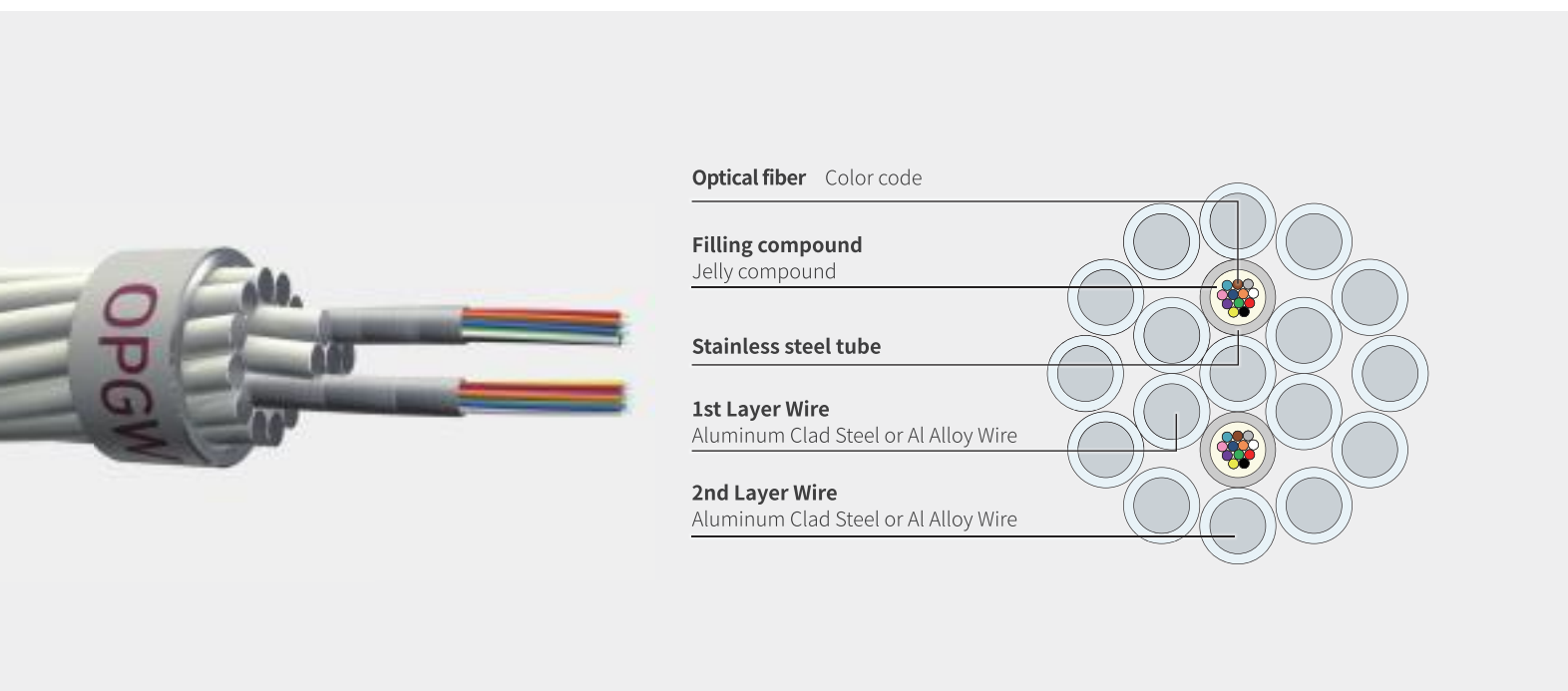
[IEEE 1138] [IEC 60794-4]

[ISO 9001, 14001] [OHSAS 18001]

- Fiber Capacity of up to 96F
- All Metallic Construction
- Strong protection to optical fibers
- High Crush Resistance
- Improved Short Circuit Capacity
- Excellent Corrosion Resistance
- Optical Fibers housed in a Central Stainless Steel Tube
- Compact option for high short circuit rating and tensile strength



# OPGW STAINLESS STEEL TUBE



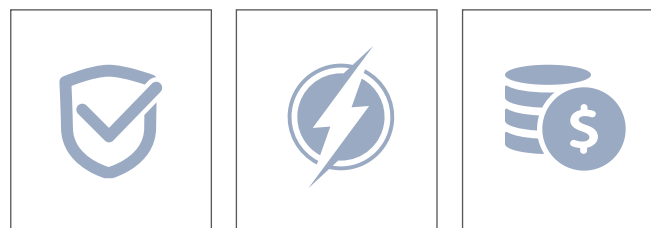
FIBERS	CONDUCTOR AREA		FAULT CURRENT (kA) <sup>2</sup> sec	OVERALL DIAMETER		APPROXIMATE WEIGHT		APPROXIMATE RBS	
	IN <sup>2</sup>	MM <sup>2</sup>		IN	MM	LBS/FT	KG/KM	LBS	KGF
(MAX)									
24	0.166	107	63	0.541	13.8	0.302	450	13,944	6,325
24	0.225	145	103	0.630	16.0	0.491	730	25,507	11,570
24	0.268	173	147	0.689	17.5	0.588	875	30,512	13,840
48	0.157	101	57	0.541	13.8	0.289	430	12,346	5,600
48	0.212	137	94	0.630	16.0	0.470	700	23,358	10,595
48	0.254	164	134	0.689	17.5	0.561	835	27,944	12,675
48	0.350	226	282	0.787	20.0	0.635	945	29,498	13,380
96	0.274	177	173	0.722	18.4	0.571	850	26,963	12,230
144	0.225	145	155	0.669	17.0	0.501	745	22,465	10,190
288	0.175	113	97	0.669	17.0	0.477	710	22,300	10,115

## Description

This robust design combines high mechanical and electrical capabilities, strong protection to the optical fibers and excellent lightning resistance.

This prototype optical core is composed of color coded optical fiber housed in a gel-filled stainless-steel tube located in the central point of the cable or stranded in one of the wire layers.

## Features



**Crush Resistance** Shield Wire    **Electrical Performance** Aluminum Pipe    **Cost Saving** Fast Splicing

## Standards & Certifications

[ITU-T G 650. 652. 655] [IEC 60793] [TIA-598]

[IEEE 1138] [IEC 60794-4]

[ISO 9001, 14001] [OHSAS 18001]

- All Metallic Construction
- Optical Fibers Housed in Stainless Steel Tube
- Fiber Capacity of up to 288F
- Long Span Capability and Extreme Weather Loadings
- High Short Circuit Current Capacity
- Strong Protection to Optical Fibers
- High Crush Resistance
- High Short Circuit Capacity
- Suitable for strong lightning areas

### Fiber Grade

Fiber	ANYWAVE LL	ANYWAVE D	ANYWAVE D	ANYWAVE D	ANYWAVE 200	ANYWAVE FLEX A2	ANYWAVE FLEX B3	ANYWAVE REACH C	ANYWAVE REACH AL	ANYWAVE REACH AS
Fiber Category	G.652.D	G.652.D	G.652.D	G.652.D	G.652.D	G.657.A2	G.657.B3	G.655.C	G.655.A	G.655.A
Performance Grade	LL	1	2	3	2	2	2	4	5	6
Wavelength (nm)	1310/1383/1550	1310/1383/1550	1310/1383/1550	1310/1383/1550	1310/1383/1550	1310/1383/1550	1310/1383/1550	1310/1383/1550	1310/1383/1550	1310/1383/1550
Maximum Attenuation (dB/km)	0.34/0.34/0.22	0.35/0.35/0.21	0.35/0.35/0.25	0.40/0.40/0.30	0.35/0.35/0.25	0.35/0.35/0.25	0.35/0.35/0.25	- / - /0.25	- / - /0.25	- / - /0.25
Typical Attenuation (dB/km)	0.33/0.33/0.19	-	-	-	-	-	-	- / - /0.22	- / - /0.22	- / - /0.22

### Design Ordering Check List

Maximum Span Length	_____ <input type="checkbox"/> Feet <input type="checkbox"/> Meters
Installation Sag	_____ %
Weather Loading	<input type="checkbox"/> NESL <input type="checkbox"/> Light <input type="checkbox"/> Medium <input type="checkbox"/> Heavy Other : _____ Wind Load _____ Ice Load _____ Temperature
Cable Construction	<input type="checkbox"/> Single Jacket <input type="checkbox"/> Double Jacket
Test Standard	<input type="checkbox"/> IEEE <input type="checkbox"/> IEC
Installation Infrastructure	<input type="checkbox"/> Telecom Poles <input type="checkbox"/> Distribution Line <input type="checkbox"/> Transmission Line
Outer Sheath	<input type="checkbox"/> Polyethylene <input type="checkbox"/> Tracking Improved Polyethylene
No.of fibers	_____ #
Fiber Type and Grade	
Fibers Configuration	<input type="checkbox"/> 6F/LT <input type="checkbox"/> 12F/LT <input type="checkbox"/> 24F/LT <input type="checkbox"/> Other _____ .
Other : Max. Sag Under Max. Operation Loading	_____ %
Length Sequential Marking	<input type="checkbox"/> Feet <input type="checkbox"/> Meter

**WE ARE LEADING  
THE HYPERCONNECTED SOCIETY**