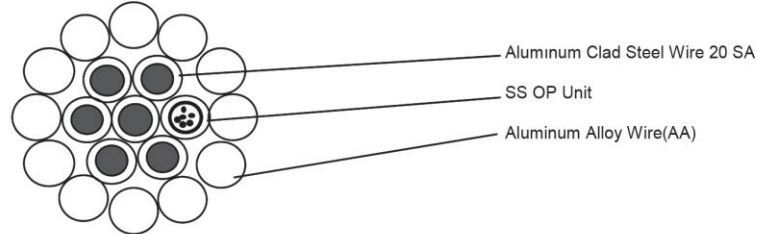


	<b>OPGW Cable Specifications</b>	<b>Serial No:</b>	
		<b>Page No:</b>	1/3

**Cable Type:** OPGW - 2S 1x24SM (AA/ACS 85/42 -122,9 )

**Cross Section:**



Structure:	Material	No	Material	No.	Material Dia.	
	Fiber	G.652D	24			
Center	ACS wire	1			Diameter	3,00 mm
Layer1	ACS wire	5	AA wire	0	Diameter	3,00 mm
	SS Tube	1	Fibers (single tube)	24	Tube-Dia.	3,00 mm
Layer2	ACS wire	0	AA wire	12	Diameter	3,00 mm

<b>Technical Data:</b>	According to IEC60794-4-1, IEEE-1138 standards	
	Stranding direction of outer layer is right hand (Z-stranding)	
	Stranded: core and layer1 greased	No
	Cable Diameter	15,00 mm
	Cable Weight	542 kg/km
	Supporting Cross Section	127,2 mm <sup>2</sup>
	Section of AS Wire	42,4 mm <sup>2</sup>
	Section of AA Wire	84,8 mm <sup>2</sup>
	Rated Tensile Strength (RTS)	80,2 kN
	Modulus of Elasticity (E-Modulus)	97,3 kN/mm <sup>2</sup>
	Thermal Elongation Coefficient	17,45 10 <sup>-6</sup> /°C
	Permissible Maximum Working Stress	264,8 N/mm <sup>2</sup>
	Everyday Stress (EDS) ( 20% RTS)	126,1 N/mm <sup>2</sup>
	Ultimate Exceptional Stress	454,0 N/mm <sup>2</sup>
	DC Resistance	0,328 Ω/km
	Short Time Current (0,5s, 40°C~180°C)	15,7 kA
	Short Circuit Current Capacity I <sup>2</sup> t	122,9 kA <sup>2</sup> s
Minimum Bending Radius Installation	300 mm	
Minimum Bending Radius Operation	225 mm	
Ratio of RTS to weight	15,1 km	
<b>Temperature Range:</b>	Installation	-10°C ~ +50 °C
	Transportation and Operation	-40°C ~ +80 °C

Remarks: All Sizes and Values are Nominal Values

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### OPGW Cable Specifications

Serial No:

Page No

2/3

#### Colour Identification Of Fiber In The stainless steel tube unit

Colour code of fiber in the steel tube unit shall be identified referring to the following table:

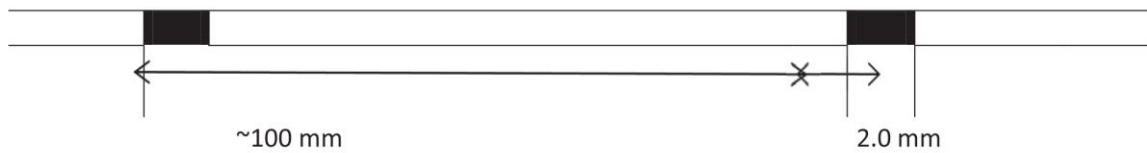
#### Typical number of fiber:24

Remark	Fiber No.&Color					
	1	2	3	4	5	6
Without Colour Ring	Blue	Orange	Green	Brown	Gray	White
	7	8	9	10	11	12
	Red	Natural	Yellow	Violet	Pink	Aqua
	13	14	15	16	17	18
With S100 Colour Ring	1	2	3	4	5	6
	Blue	Orange	Green	Brown	Gray	White
	7	8	9	10	11	12
	Red	Natural	Yellow	Violet	Pink	Aqua

Remark:The black colour with colour ring is changed into naturel color.

#### Colour ring method:

S100: Use single black colour ring on the fiber surface with ~100 mm alternation :



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**Fiber Specifications**

The optical fibre shall be made of high pure silica and gernaum doped silica. UV curable acrylate materials is applied over fibre cladding as optical fibre primary protective coating. The detail data of optical fibre performance are shown in the following table.

**G652.D Fibre in cable**

CATEGORY	DESCRIPTION	UNIT	SPECIFICATIONS	
			Before Cabling	After Cabling
OPTICAL SPECIFICATIONS	Attenuation Coefficient-1310nm	dB/km	≤0.34	≤0.36
	Attenuation Coefficient-1383nm	dB/km	≤0.33	≤0.35
	Attenuation Coefficient-1550nm	dB/km	≤0.20	≤0.22
	Attenuation Coefficient-1625nm	dB/km	≤0.23	≤0.25
	Zero Dispersion Wavelength	nm	1300-1324	
	Zero Dispersion Slope	ps/nm <sup>2</sup> .km	≤0.092	
	PMD Link Value (M=20 Cables Q=0.01%), maximum PMD <sub>Q</sub>	ps/(km) <sup>½</sup>	≤0.1	
	Cable Cutoff Wavelength(λ <sub>cc</sub> )	nm	≤1260 nm	
	Macro Bending Loss			
	(100 turns; Φ 50 mm) @1550nm	dB	≤0.05	
	(100 turns; Φ 50 mm) @1625nm	dB	≤0.10	
	Mode Field Diameter @1310nm	μm	9.2±0.4	
Dimensional specifications	Cladding Diameter	μm	125±0,7	
	Core/Clad Concentricity Error	μm	≤0.5	
	Cladding Non-Circularity	%	≤1.0	
Mechanical	Proof Stress	Gpa	≥0,69	

