

## GYTDA RIBBON OUTDOOR CABLE

### Cable Description

GYTDA belongs to optical ribbon cable which featured with intensive fiber, small diameter, light weighted. Several ribbons form the cable which save space and easy to identify. It is widely used in trunk line of access network.

### Quality

We ensures a continuing level of quality in our cable products through several quality control programs including ISO 9001 and all the materials have passed REACH and ROHS.

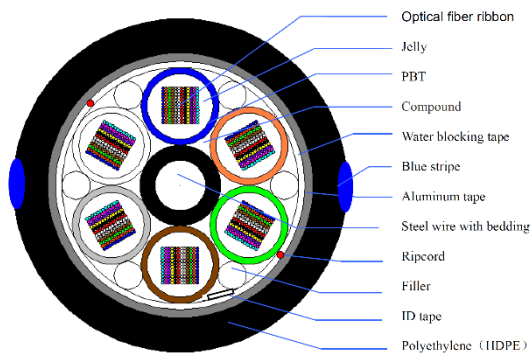
### Optical Fiber Characteristics G652D

Item		Construction
Mode field diameter	At 1310nm	9.2±0.4μm
	At 1550nm	10.5±1.0μm
Cladding diameter		125±1μm
Core concentricity error		≤0.5μm
Cladding non-circularity		≤1.0%
Primary coating diameter		245±10μm
Primary coating non-circularity		≤6.0%
Primary coating-cladding concentricity error		≤12μm
Cut-off wavelength (λ <sub>cc</sub> ) (for cable)		≤1260nm
Cut-off wavelength (λ <sub>c</sub> ) (for fiber)		1180nm~1330nm
Primary coating diameter	(Not included color layer)	245±10μm
	(Included color layer)	250±15μm
Coating-cladding concentricity error		≤12.5μm
Fiber curl radius		≥4m

### Transmission characteristics

Item		Performance
Attenuation	At 1310nm(cabled)	≤0.36dB/km
	At 1310nm( before cable)	≤0.33dB/km
	At 1550nm(cabled)	≤0.22dB/km
	At 1550nm(before cable)	≤0.20dB/km
Macro bending loss	Φ=25mm, 100turns at 1310 & 1550nm	≤0.05dB
	Φ=30mm, 100turns at 1625nm	≤0.05dB
Chromatic dispersion	Within 1288~1339nm	≤3.5ps/nm·km
	At 1550nm	≤18ps/nm·km
	At 1625nm	≤22ps/nm·km
Zero dispersion wavelength		1300~1324nm
Zero dispersion slope		≤0.092ps/nm <sup>2</sup> ·km

### Cross Section:



## Dimension (

Amount. of fiber	Max. fiber per tube	No. of tube positions	No. of active tubes	Nom. thickness of sheath	Diameter (Appr.)	Weight (Appr.)
				mm	mm	kg/km
192	12*8	5	2	2.3	24.2	471.0
288	12*8	5	3	2.3	24.2	459.0
384	12*8	5	4	2.3	24.2	454.0
432	12*8	5	5	2.3	24.2	444.0
576	12*8	6	6	2.3	26.2	511.0

\*Note: The minimum thickness of the sheath is 2.0mm.

## Coding



## Ribbon identification

Ribbon No.	Fiber No.											
	1	2	3	4	5	6	7	8	9	10	11	12
1	Blue	Orange	Green	Brown	Gray	White	Red	Black	Yellow	Violet	Pink	Aqua
2	Blue	Orange	Green	Brown	Gray	White	Red	Black	Yellow	Violet	Pink	Aqua
3	Blue	Orange	Green	Brown	Gray	White	Red	Black	Yellow	Violet	Pink	Aqua
4	Blue	Orange	Green	Brown	Gray	White	Red	Black	Yellow	Violet	Pink	Aqua
5	Blue	Orange	Green	Brown	Gray	White	Red	Black	Yellow	Violet	Pink	Aqua
6	Blue	Orange	Green	Brown	Gray	White	Red	Black	Yellow	Violet	Pink	Aqua
7	Blue	Orange	Green	Brown	Gray	White	Red	Black	Yellow	Violet	Pink	Aqua
8	Blue	Orange	Green	Brown	Gray	White	Red	Black	Yellow	Violet	Pink	Aqua

## Loose tube identification

Position	Tube color
1	Blue
2	Orange
3	Green
4	Brown
5	Grey
6	White

## Reference

The cable which Our offering are designed, manufactured and tested according to international standards as follows:

NO	ITEM	TEST METHOD	SPECIFICATION
1	Tensile performance IEC60794-1-21-E1	-Short-term load: 2700N - Time: 5 minute	Loss change $\leq$ 0.10 dB@1550 nm (after test) - Fiber strain $\leq$ 0.6 % - No sheath damage
2	Crush test IEC60794-1-21-E3	- Load: 2000 N /100mm - Time: 5 minute - Length: 100 mm	Loss change $\leq$ 0.10 dB@1550 nm (after test) - No sheath damage
3	Impact test IEC60794-1-21-E4	- Impact hight:1m - Impact weight:0.45kg - Points of impact: 3 - Times of per point: 2	Loss change $\leq$ 0.10 dB@1550 nm (after test) - No sheath damage
4	Repeated bending IEC60794-1-21-E6	- Bending radius.: $20 \times D$ - Load: 250N - Flexing rate: 2sec/cycle - No. of cycle: 25	- No fiber break - No sheath damage
5	Water penetration IEC60794-1-22-F5	- Height of water: 1m - Sample length: 3 m - Time: 24 hr	- No drip through the cable core assembly
6	Twist IEC60794-1-21-E7	- Length: 1 m - Load: 250N - Twist rate: $\leq$ 60sec/cycle - Twist angle: $\pm 180^\circ$ - No. of cycle: 5	-Loss change $\leq$ 0.10 dB@1550 nm (after test) - No sheath damage
7	Temperature Cycling IEC60794-1-22-F1	- Temperature step: +20°C $\rightarrow$ -40°C $\rightarrow$ +70°C $\rightarrow$ +20°C - Number of cycle: 2 turns - Time per each step: 12 hrs	- Loss change $\leq$ 0.15 dB@1550 nm (after test) - No sheath damage