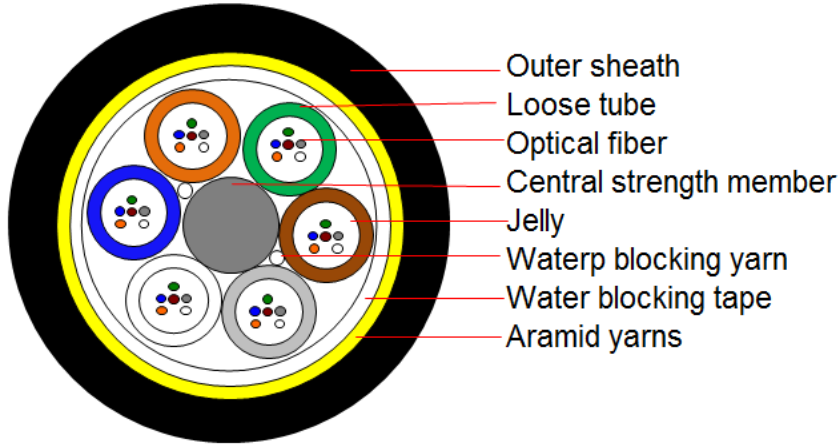


## ADSS-Single-PBT



- Outer sheath
- Loose tube
- Optical fiber
- Central strength member
- Jelly
- Waterp blocking yarn
- Water blocking tape
- Aramid yarns

### Characteristic of Optical Cable

- Min. bending radius for installation  
Static: 10 x cable diameter  
Dynamic: 20 x cable diameter
- Application temperature range  
Operation: - 30°C ~ +70°C  
Installation: -10°C ~ +60°C  
Storage/transportation: - 40°C ~ +70°C

### Cable Specification:

Loose tube construction, tubes jelly filled, elements (tubes and filler rods) laid up around non-metallic central strength member, polyester yarns used to bind the cable core, water blocking tape wrapped of the cable core, aramid yarn reinforced and PE outer sheath.

### Cable structure and parameter

| SN | Item                                 | Unit    | Value       |      |      |
|----|--------------------------------------|---------|-------------|------|------|
| 1  | No. of fibers                        | count   | 36          | 72   | 144  |
| 2  | No. of fibers per tube               | count   | 6           | 12   | 12   |
| 3  | No. of elements                      | count   | 6           | 6    | 12   |
| 4  | Cable diameter(±5%)                  | mm      | 11.0        | 11.6 | 16.4 |
| 5  | Cable weight(±10%)                   | kg/km   | 94          | 106  | 209  |
| 6  | MAT (MAX. Allowable Working tension) | N       | 3000        |      |      |
| 7  | Short term crush                     | N/100mm | 1500        |      |      |
| 8  | Weather condition                    | /       | NESC medium |      |      |
| 9  | Span                                 | m       | 115         |      |      |

### Fiber color code

| 1                          | 2      | 3     | 4     | 5    | 6     | 7   | 8     | 9      | 10     | 11   | 12   |
|----------------------------|--------|-------|-------|------|-------|-----|-------|--------|--------|------|------|
| Blue                       | Orange | Green | Brown | Gray | White | Red | Black | Yellow | Purple | Pink | Aqua |
| Color codes for loose tube |        |       |       |      |       |     |       |        |        |      |      |
| 1                          | 2      | 3     | 4     | 5    | 6     | 7   | 8     | 9      | 10     | 11   | 12   |
| Blue                       | Orange | Green | Brown | Gray | White | Red | Black | Yellow | Purple | Pink | Aqua |

### Main mechanical & environmental performance test

| Item                                 | Test Method  | Acceptance Condition  |
|--------------------------------------|--|---|
| Tensile Strength<br>IEC 60794-1-2-E1 | - Load: MAT<br>- Length of cable: about 50m<br>- Load time: 1min | - Fiber strain $\leq 0.33\%$<br>- No fiber break and no sheath damage.                    |
| Crush Test<br>IEC 60794-1-2-E3       | - Load: Short term crush<br>- Load time: 1min                    | - Loss change $\leq 0.1\text{dB}@1550\text{nm}$<br>- No fiber break and no sheath damage. |

### Characteristic of Optical Fiber

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#### *G652D fiber information*

|  |   |
|--|---|
| Mode field diameter (1310nm):                          | $9.2\mu\text{m}\pm 0.4\mu\text{m}$                |
| Mode field diameter (1550nm):                          | $10.4\mu\text{m}\pm 0.8\mu\text{m}$               |
| Cut off wavelength of cabled fiber ( $\lambda_{cc}$ ): | $\leq 1260\text{nm}$                              |
| Attenuation at 1310nm:                                 | $\leq 0.36\text{dB/km}$                           |
| Attenuation at 1550nm:                                 | $\leq 0.22\text{dB/km}$                           |
| Bending loss at 1550nm (100 turns, 30mm radius):       | $\leq 0.05\text{dB}$                              |
| Dispersion in the range 1288 to 1339nm:                | $\leq 3.5\text{ps}/(\text{nm}\cdot\text{km})$     |
| Dispersion at 1550nm:                                  | $\leq 18\text{ps}/(\text{nm}\cdot\text{km})$      |
| Dispersion slope at zero dispersion wavelength:        | $\leq 0.092\text{ps}/(\text{nm}^2\cdot\text{km})$ |