

Samsung Widepass - Bendfree

Excellent optical properties

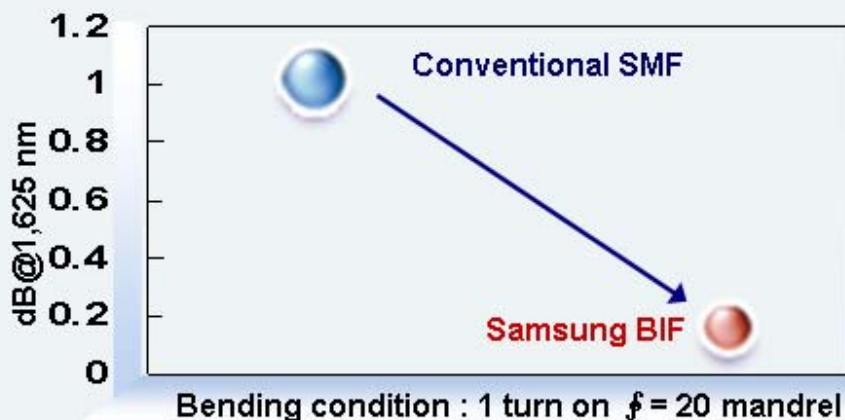
under severe bending and environment

Optimized optical properties for FTTH N/W applications

Low water peak fiber (ITU-T G.652C/D)

Excellent compatibility with commercial single mode fiber

Macro - bending Loss



□ Fiber Attenuation(Typical value)

Wavelength	1310 nm	1383 nm	1550 nm	1625 nm
dB/km	0.33	0.28	0.19	0.20

□ Cutoff Wavelength

Cable Cutoff Wavelength $\leq 1,260$ nm

1. Coating

Coated with high performance UV curable dual layer acrylate. Also compatible with all commercial cable filling gels or oils.

2. Optical specifications

Parameter		Wavelength	Unit	Specification
Attenuation		1310nm	dB/km	≤ 0.35
		$1383 \pm 3\text{nm}$		$\leq 0.33^*$
		1550nm		≤ 0.21
		1625nm		≤ 0.24
Attenuation vs. wavelength		1285~1330nm	dB/km	≤ 0.05
		1525~1565nm		≤ 0.03
		1565~1640nm		≤ 0.03
Point discontinuities		1310nm, 1550nm	dB	≤ 0.05
MFD		1310nm	μm	8.6 ± 0.4
		1550nm		9.6 ± 0.5
Macro-bending Loss	$\Phi 50\text{mm}$, 100turns	1550nm	dB	≤ 0.01
		1625nm		≤ 0.01
	$\Phi 30\text{mm}$, 1turn	1550nm		≤ 0.01
		1625nm		≤ 0.01
	$\Phi 20\text{mm}$, 1turn	1550nm		≤ 0.05
		1625nm		≤ 0.20
Cut-off wavelength (Cable)			nm	≤ 1260

*The attenuation at $1383 \pm 3 \text{ nm}$ is less than the attenuation at 1310nm after H₂-aging.

Parameter	Wavelength	Unit	Specification
Chromatic Dispersion	1290~1330nm	ps/nm.km	≤ 3.0
	1550nm		≤ 18.0
	1625nm		≤ 23.0
Zero dispersion wavelength		nm	1300~1324
Dispersion slope	Zero dispersion wavelength	ps/nm ² .km	≤ 0.095
PMD	Link Design Value	ps/ $\sqrt{\text{km}}$	≤ 0.06
	Max. individual value	ps/ $\sqrt{\text{km}}$	≤ 0.1

3. Dimensional Specifications

Parameter		Unit	Specification
Glass	Clad diameter	μm	125 ± 0.7
	Clad non-circularity	%	≤ 0.8
	Core-clad concentricity error	μm	≤ 0.5
Coating	Coating diameter	μm	245 ± 3.0
	Coating non-circularity	%	≤ 5.0
	Coating-clad concentricity error	μm	≤ 10.0
Fiber curl		m	≥ 4

4. Mechanical and Environmental Specifications

Parameter	Unit	Specification
Proof Test Level	GPa(kpsi)	≥ 0.7 (≥ 100)
Coating Strip Force	N	1.3 ~ 8.9
Fatigue Resistance Parameter(Nd)	-	≥ 18

Parameter	Wavelength	Unit	Specification
Dynamic Tensile Strength (Mean value , Gauge Length:0.5m)		GPa	≥ 4.0
Temperature Dependence (-60 ~ +85 °C)	1310nm 1550nm	dB/km	Induced Attenuation ≤ 0.05
Temperature Humidity Cycling (-10 ~ +85 °C , ~98% RH)	1310nm 1550nm	dB/km	Induced Attenuation ≤ 0.05
Water Immersion (23 \pm 2 °C)	1310nm 1550nm	dB/km	Induced Attenuation ≤ 0.05
Heating Aging (85 \pm 2 °C)	1310nm 1550nm	dB/km	Induced Attenuation ≤ 0.05

5. Other Performance Characteristics

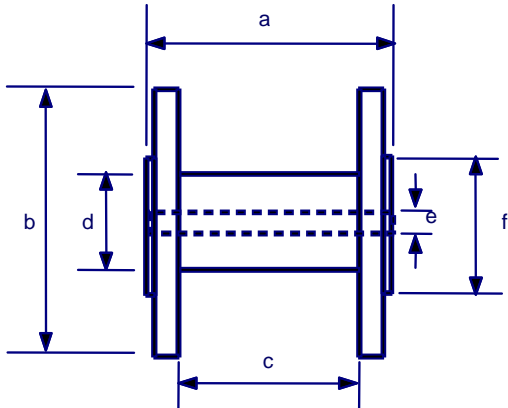
Parameter	Wavelength	Unit	Typical value
Effective Group Index	1310nm	-	1.4706
	1550nm	-	1.4700
Relative Index difference between Core and Clad		%	0.43

6. Delivery Length

Length : 4.2 ~ 25.2 f-km for each spool (multiple of 2.1 f-km)

* Special length is available upon request.

1. Fiber Reel



	Description	Size[mm]
a	Width of Outside flanges	110
b	Flange out-diameter	235
c	Width of inside flanges	95.4
d	Bore out-diameter	152
e	Bore diameter	25.4
f	Wing diameter	138
-	Color : Blue	

The label that includes at least the following information shall be attached on each shipping spool

- Fiber ID
- Fiber Length
- Attenuation @1310, 1383 & 1550nm

2. Data Sheet

Measured fiber data sheet for each shipment shall be submitted to customer in the form of data sheet and/or "MS-Excel" or compatible data file with 3.5 inch diskette at least with the following items.

- Fiber ID
- Fiber Length
- Attenuation @1310, 1383 & 1550nm
- Cut-off wavelength
- Mode Field Diameter @1310nm
- Chromatic Dispersion @1310 & 1550nm
- Geometry of the fiber & Coating
- PMD @1550nm