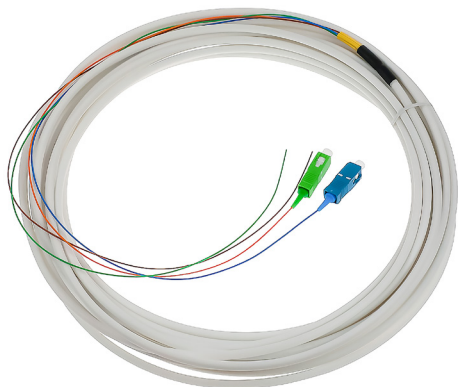


PRODUCT FAMILY
SUBSCRIBER CABLES
PRODUCT MODEL
2 AND 4 FIBERS
FEATURES


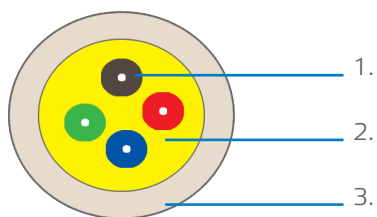
Fibren som benyttes er av typen Corning ClearCurve og tilfredstiller kravene i ITU standardene G.657A/B

Kabelen består av 2 eller 4 fibere, 0,9 mm med fast kledning og finnes i forskjellig lengder med konnektorer montert i en ende. Kabelen er beregnet for synlig montasje av ukyndig personell (kunder) i forbindelse med utbygging av FTTH og PON nett. Normalt brukt mellom Flomatik grensesnitt boks (se eget datablad) og kundens gateway (hjemmesentral) eller vegguttak. Ytterkappen har hvit farge og vil derfor egne seg godt for synlig montasje i alle typer rom.

SPECIFICATIONS
TEKNISKE DATA

CONFIGURATION - Single-mode Distribution Cable LSZH, G657

1	Buffered Fiber	2/ 4pcs buffered fiber, LSZH jacket, blue, orange, green, brown, with Corning ClearCurve LBL, G657
2	Kevlar	Dupont Teijin
3	Jacket	UV stabilized, LSZH, white, thickness of 1.1 mm. OD is 4.5 mm



Kabelen består av 2 eller 4 fibere, 0,9 mm med fast kledning og finnes i forskjellig lengder med konnektorer montert i en ende. Antallet konnektorer og type varierer etter kundens ønsker. Det kan om ønskelig også monteres konnektorer i begge ender. Alle konnektorene blir målt etter polering etter de spesifikasjonene som står i tabell på neste side. I tillegg blir gjennomgangsdempning og retur dempning alltid målt og måleresultatet blir vedlagt hver kabel.

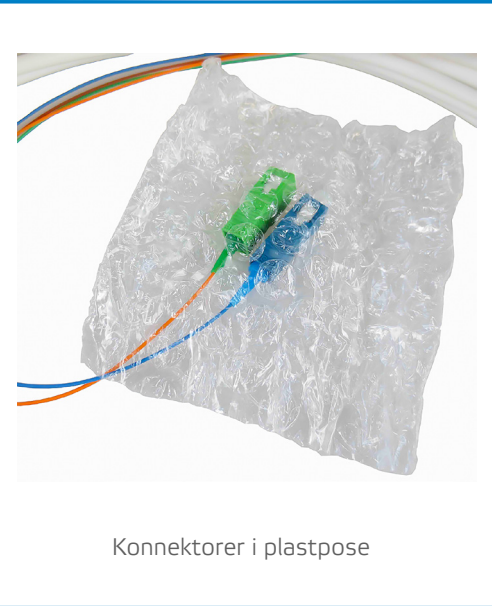
Det er en avmantlet ende på 30 cm for kveiling i gateway eller veggkontakt. Ytterkappen kan merkes etter kundens ønsker, men som standard er den umerket. I overgangen mellom ytterkappe og avmantlede fibere er det påmontert en dobbel bøye/strekkavlaster.

Fibren som benyttes er av typen Corning ClearCurve LBL og tilfredstiller kravene i ITU standardene G657A og B, samt er kompatibel med G.652.D standarden. Det vil i praksis si at man kan legge denne kabelen rundt de fleste hjørner i et hus uten spesielle forholdsregler.

Da ytterkappa er UV stabilisert kan kabelen legges synlig utendørs. Hvis det er ønskelig kan kabelen også ustyes med materiale som forhindrer vanninntrenging. Det vil imidlertid medføre at kapp på G4 kabel vil gå ned fra 1,1 til 1,0 mm, men dette vil ikke medføre målbare endringer i tekniske parameter. For ytterligere tekniske data om kabelen, henvises det til tabell på de neste sidene.

PERFORMANCE		
Attenuation	@1310 nm	≤ 0.38 dB/km
	@1550 nm	≤ 0.23 dB/km
	@1625 nm	≤ 0.25 dB/km
Dimension	Clad. diameter	125 ± 0.7 μ m
	Non-circularity	≤ 1 %
	Conc.	≤ 8 μ m
	Buffer Diameter	0.85 ± 0.05 mm
	Cable Diameter	Normal diameter 4.5 mm ± 0.5
Stripping	Coating stripping	1.3 ~ 8.9 N
	Buffer stripping	≤ 16 N
Tension	Fiber	2/4
	Long term	200 N
	Short term	660 N
Crush	Long term	200 N
	Short term	1000 N
Impact	1 N.m, additional att. ≤ 0.05 dB	
Repeating tending	20 N, 300 cycles, additional att. ≤ 0.05 dB	
Torsion	20 N, 20 cycles, $\pm 180^\circ$, additional att. ≤ 0.05 dB	
Bending radius	Load	50 mm
	Unload	15 mm
Temperature	Operating	-40 °C to +70 °C
	Storage	-40 °C to +70 °C
Measurments with interferometer	End face Radius LC/UPC	$5\text{mm} \leq R \leq 25\text{mm}$
	End face Radius other connectors (UPC/APC)	$10/5\text{mm} \leq R \leq 25/12\text{mm}$
	Apex offset	$\leq 50\mu\text{m}$
	Fiber Height	$-100\text{nm} \leq U \leq 50\text{nm}$

PERFORMANCE		
Cleaning of connector end face	According to:	IEC 61300-3-35
Insertion loss	SC/APC max/avr	0,3/0,17dB
RL	min	>65dB
Conn. made accord. to:	Standard	IEC 61754-4



CORNING

Corning® ClearCurve® LBL optical fiber is a full-spectrum fiber with enhanced macrobend performance compared to traditional improved bend single-mode fibers. The fiber exceeds the ITU-T Recommendation G.657.A2/B2 and remains fully compliant with ITU-T Recommendation G.652.D and compatible with the installed base of Corning® SMF-28e+® fiber.

OPTICAL SPECIFICATIONS
MAXIMUM ATTENUATION

WAVELENGTH (nm)	MAXIMUM VALUE* (dB/km)
1310	0.33 - 0.35
1383 ±3**	0.31 - 0.35
1490	0.21 - 0.24
1550	0.19 - 0.20
1625	0.20 - 0.23
* Maximum specified attenuation value available within the stated ranges.	
** Attenuation post-hydrogen aging according to IEC 60793-2-50 Section C.5 for B.1.3 fibers.	
Alternate attenuation offerings available upon request	

POINT DISCONTINUITY

WAVELENGTH (nm)	POINT DISCONTINUITY (dB)
1310	≤ 0.05
1550	≤ 0.05

CABLE CUTOFF WAVELENGTH

λ_{cc}	≤ 1260 nm
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MODE-FIELD DIAMETER

WAVELENGTH (nm)	MFD (μm)
1310	8.6 ± 0.4
1550	9.6 ± 0.4

DISPERSION

WAVELENGTH (nm)	DISPERSION VALUE [ps/(nm*km)]
1550	≤ 18.0
1625	≤ 23.0
Zero Dispersion Wavelength (λ_0): 1304 nm ≤ λ_0 ≤ 1324 nm Zero Dispersion Slope (S_0): ≤ 0.092 [ps/(nm*km)]	

ATTENUATION VS. WAVELENGTH

RANGE (nm)	REF. λ (nm)	MAX. α DIFFERENCE (dB/km)
1285-1330	1310	0.03
1525-1575	1550	0.02
The attenuation in a given wavelength range does not exceed the attenuation of the reference wavelength (λ) by more than the value α .		

POLARIZATION MODE DISPERSION (PMD)
Value (Ps/vkm)

PMD Link Design Value	≤ 0.06*
Maximum Individual Fiber PMD	≤ 0.2

* Complies with IEC 60794-3:2001, Section 5.5, Method 1, (m = 20, Q = 0,01%), September 2001.

The link design value is a term used to describe the PMD of concatenated lengths of fiber (also known as PMD_Q). This value represents a statistical upper limit for total link PMD. Individual PMD values may change when fiber is cabled. Corning's fiber specification supports emerging network design requirements for high-data-rate systems operating at 10 Gbps or higher.

MACROBEND LOSS

MANDREL RADIUS (mm)	NUMBER OF TURNS	WAVELENGTH (nm)	INDUCED ATTENUATION* (dB)
7.5	1	1550	0.4
7.5	1	1625	0.8
* The induced attenuation due to fiber wrapped around a mandrel of a specified diameter.			

DIMENSIONAL SPECIFICATIONS

GLASS GEOMETRY	
Fiber Curl	≥ 4.0 radius of curvature
Cladding Diameter	$125.0 \pm 0.7 \mu\text{m}$
Core-Clad Concentricity	$\leq 0.05 \mu\text{m}$
Cladding Non-Circularity	$\leq 0.07 \%$

COATING GEOMETRY	
Coating Diameter	$242 \pm 5 \mu\text{m}$
Coating-Cladding Concentricity	$< 12 \mu\text{m}$

ENVIRONMENTAL SPECIFICATIONS

ENVIRONMENTAL		
ENVIRONMENTAL TEST	TEST CONDITION	INDUCED ATTENUATION 1310, 1550 and 1625 nm (dB/km)
Temperature Dependence	-60 to $+85^{\circ}\text{C}^*$	≤ 0.05
Temperature Humidity Cycling	-10 to $+85^{\circ}\text{C}$ up to 98% RH	≤ 0.05
Water Immersion	$23^{\circ} \pm 2^{\circ}\text{C}$	≤ 0.05
Heat Aging	$85^{\circ} \pm 2^{\circ}\text{C}$	≤ 0.05
Damp Heat	85°C at 85% RH	≤ 0.05
[*] Reference temperature = $+23^{\circ}\text{C}$ Operating Temperature Range: -60 to $+85^{\circ}\text{C}$		

ENVIRONMENTAL SPECIFICATIONS

PROOF TEST
The entire fiber length is subjected to a tensile stress ≥ 100 kpsi (0.7 GPa)*
* Higher proof test levels available

LENGTH
Fiber lengths available up to 50.4* km/spool
* Longer spliced lengths available