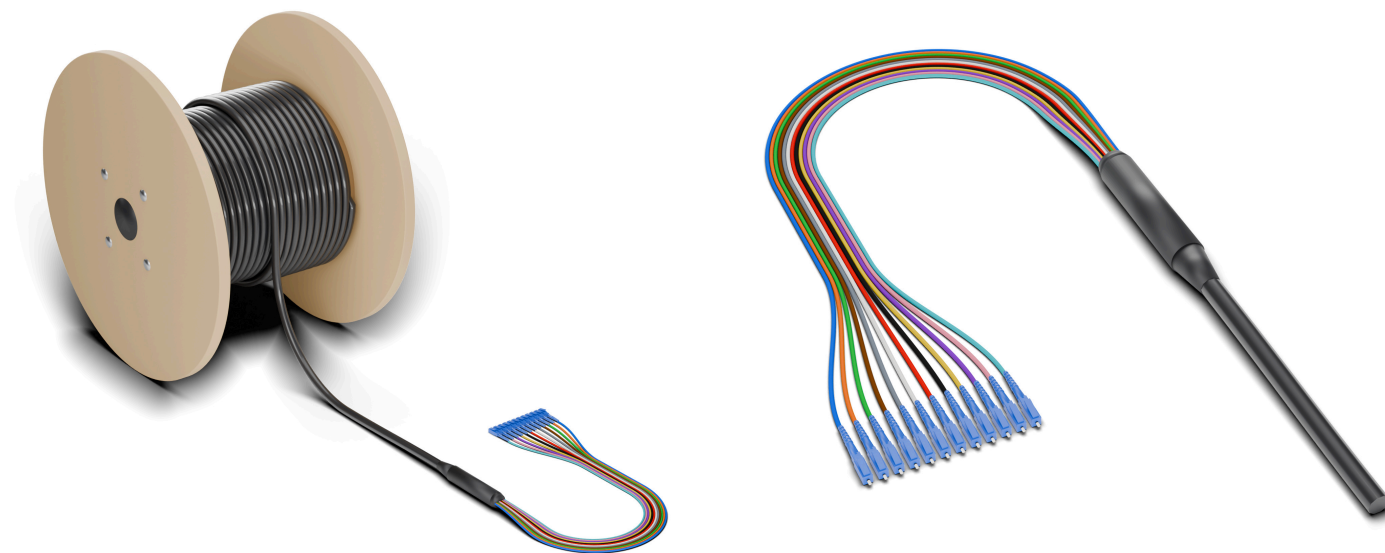


Preterminated Cables

OSP and plenum · 12 to 288 fibers · factory terminated · built to length

Build America, Buy America (BABA) compliant
Self-certified · compliance letter available on request



Shown: 12-fiber OSP assembly on a reel (left) and the 18" breakout end with 12 TIA-598, 2 mm, color-coded legs, LC/UPC (right).
Connectors and leg length are set per order.

OVERVIEW

Outside plant and plenum fiber, terminated before it ships

One Optics preterminated OSP cables arrive cut to length with the fibers already broken out and connectorized, so the crew pulls the cable and plugs in instead of splicing on site. Assemblies are built to order from 12 to 144 fibers. Our 12-fiber builds use Corning ALTOS gel-free, all-dielectric loose tube cable with Corning SMF-28 Ultra singlemode fiber, made for lashed aerial and duct runs.

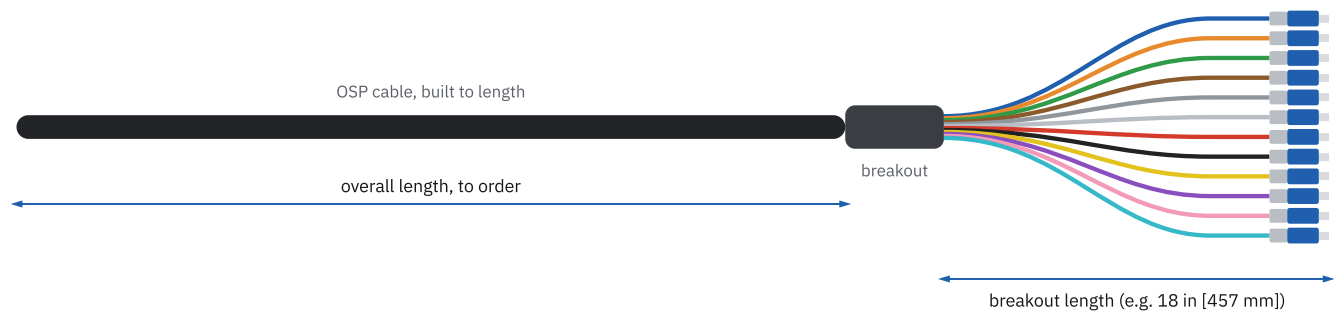
Inside the building, plenum preterms (PTP-) carry the run on to the panels: plenum-rated (OFNP) Corning ribbon or loose tube cable, 12 to 288 fibers, single end terminated or both ends unterminated. Typical runs are the 24 x 288F or 48 x 144F exit cables from the Fiber Entrance Cabinet and entrance-room runs to HD and WMHD panels. Every connector is 100% tested for end-face cleanliness and end-face geometry.

FEATURES & APPLICATIONS

- ✓ **OSP (PTO-): 12 to 144 fibers**, built to order
- ✓ **Plenum (PTP-): 12 to 288 fibers**, ribbon or loose tube
- ✓ **Factory terminated** in LC, SC or MPO (US Conec MTP), cut to length
- ✓ **Plenum ends:** single end terminated, or both ends unterminated
- ✓ **Legs:** plenum fan-out legs 18 in [457 mm] of 2 mm cable; OSP breakout legs sized to order
- ✓ **Gel-free, waterblocked** OSP loose tube cable, no cleanup
- ✓ **All-dielectric:** no bonding or grounding needed
- ✓ **Corning SMF-28 Ultra**, G.652.D and G.657.A1 compliant
- ✓ **Low-loss connectors:** 0.20 dB max IL; RL 55 dB min UPC, 65 dB min APC
- ✓ **100% tested** for end-face cleanliness and geometry
- ✓ **TIA color-coded fibers**, 1 to 12
- ✓ **OSP applications:** building-to-building and outside runs, lashed aerial and duct; lands on wall mount or rack mount panels
- ✓ **Plenum applications:** Fiber Entrance Cabinet exits, entrance room to HD and WMHD panels, plenum and riser spaces

12-144 OSP FIBER COUNT	12-288 PLENUM FIBER COUNT
Gel-free DIELECTRIC OSP CABLE	OFNP PLENUM RATED
OS2 SINGLEMODE	CTO BUILT TO LENGTH

ASSEMBLY LAYOUT · OSP



Schematic, not to scale. Breakout length, leg type and connectors are set per order.

12F CABLE: CORNING ALTOS 012ZU4-T4F22D20

Construction	Loose tube, gel-free, all-dielectric, binderless	Tensile load, short / long term	607 / 200 lbf [2700 / 890 N]
Fiber	12x SMF-28 Ultra, OS2, G.652.D and G.657.A1	Min. bend diameter	12.05 in [306 mm] installing; 8.03 in [204 mm] installed
Buffer tube	1 blue tube, 0.1 in [2.5 mm], 12 fibers	Installation temp.	-22 to 158 °F [-30 to 70 °C]
Jacket	Black medium-density polyethylene	Operation / storage temp.	-40 to 158 °F [-40 to 70 °C]
Outer diameter	0.4 in [10.2 mm] nominal	Installation	Lashed aerial and duct; building to building and outside runs
Weight	42 lb / 1000 ft [62.5 kg/km]	Design and test criteria	ANSI/ICEA S-87-640, Telcordia GR-20, RDUP PE-90
Max attenuation	0.34 / 0.34 / 0.22 dB/km at 1310 / 1383 / 1550 nm		

Cable data from the cable manufacturer's published specification. Cable data for other fiber counts on request.

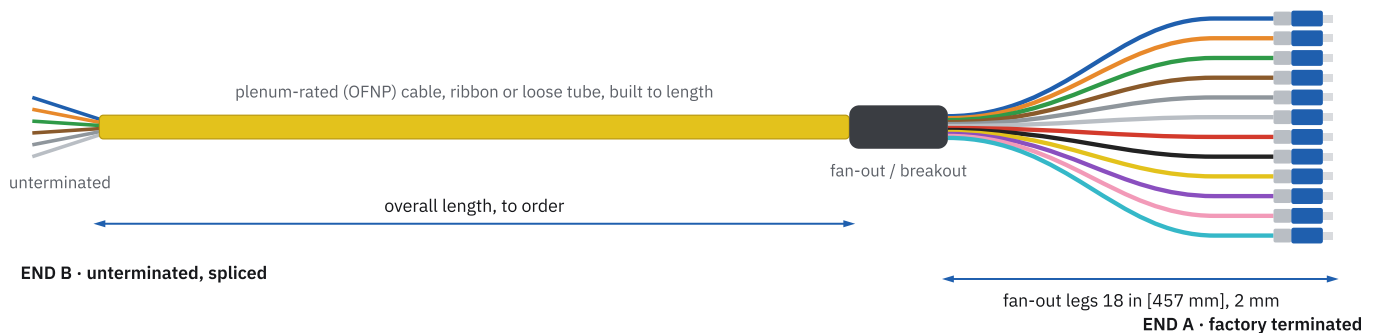
CONNECTOR PERFORMANCE · OSP AND PLENUM

Insertion loss, LC / SC	0.20 dB max per connector (0.15 dB typical)
Insertion loss, MPO	0.75 dB max per mated pair standard · 0.35 dB low-loss (US Conec MTP)
Return loss	LC / SC: UPC 55 dB min · APC 65 dB min · MPO: APC 60 dB min
Testing	100% end-face cleanliness and end-face geometry

OSP OR PLENUM?

	OSP · PTO-	PLENUM · PTP-
Where used	Building to building and outside: aerial and duct, out to nodes and huts; lands on wall or rack mount panels	Inside a building and rack to rack: Fiber Entrance Cabinet exits, HD and WMHD panels, plenum and riser spaces
Jacket rating	Black medium-density polyethylene (outdoor cable)	Plenum rated (OFNP), flame-retardant jacket, yellow
Construction	Loose tube, gel-free, all-dielectric (Corning ALTOS)	Ribbon (Corning Ribbon Cable, Plenum; UltraRibbon Plenum at 288F) or loose tube (Corning MIC 250 2.0, OFNP)
Fiber counts	12 to 144	12 to 288, including 144F and 288F
Ends	Factory terminated per order	Single end terminated (other end spliced) or both ends unterminated
Fiber	Corning SMF-28 Ultra singlemode (OS2), G.652.D and G.657.A1 · connectors LC or SC, UPC or APC; MPO-12 or MPO-24 (US Conec MTP)	

ASSEMBLY LAYOUT · PLENUM



Schematic, not to scale. Single end terminated shown: End A is factory terminated with a fan-out (ribbon) or breakout (loose tube), legs 18 in [457 mm] of 2 mm cable; End B is left unterminated for splicing, for example in the Fiber Entrance Cabinet or an HD3US. Both-ends-unterminated cables are cut to length with no fan-out.

PLENUM CABLE · COMMON DATA

Rating	Plenum (OFNP), indoor; also riser and general purpose	Installation temp.	32 to 140 °F [0 to 60 °C]; 288F loose tube 39 to 140 °F [4 to 60 °C]
Fiber	Corning SMF-28 Ultra, OS2, G.652.D and G.657.A1; singlemode only	Operation temp.	32 to 158 °F [0 to 70 °C]
Max attenuation	0.4 / 0.4 / 0.3 dB/km, 1310 / 1383 / 1550 nm	Storage temp.	-40 to 158 °F [-40 to 70 °C]
Jacket	Flame-retardant, yellow; dielectric strength	Design and test criteria	ANSI/ICEA S-83-596

RIBBON · R

FIBERS	CORNING CABLE	CONSTRUCTION	NOMINAL OD	BEND RADIUS, INSTALL / INSTALLED	MAX PULL, INSTALL	WEIGHT, LB/1000 FT
12	012ZC8-14101-20	1 x 12F ribbon	0.38 in [9.7 mm]	7.6 / 3.8 in	90 lbf [400 N]	65
24	024ZC8-14101-20	2 x 12F ribbons	0.38 in [9.7 mm]	7.6 / 3.8 in	90 lbf [400 N]	66
48	048ZC8-14101-20	4 x 12F ribbons	0.38 in [9.7 mm]	7.6 / 3.8 in	90 lbf [400 N]	68
72	072ZC8-14101-20	6 x 12F ribbons	0.49 in [12.4 mm]	9.8 / 4.9 in	90 lbf [400 N]	104
96	096ZC8-14101-20	8 x 12F ribbons	0.49 in [12.4 mm]	9.8 / 4.9 in	90 lbf [400 N]	106
144	144ZC8-14101-20	12 x 12F ribbons	0.61 in [15.5 mm]	12.2 / 6.1 in	90 lbf [400 N]	146
288	288ZV8-14101-20	12 x 24F ribbons	0.78 in [19.8 mm]	11.7 / 7.8 in	200 lbf [890 N]	231

12 to 144F: Corning Ribbon Cable, Plenum (bend-improved), one central tube. 288F: Corning UltraRibbon Indoor Dry Cable, Plenum; each 24F ribbon splits into 2 x 12F.

LOOSE TUBE · L

FIBERS	CORNING CABLE	CONSTRUCTION	NOMINAL OD	BEND RADIUS, INSTALL / INSTALLED	MAX PULL, INSTALL	WEIGHT, LB/1000 FT
12	012ZD9-T1301-M2	1 x 12F, 2 mm	0.22 in [5.5 mm]	3.25 / 2.17 in	99 lbf [440 N]	21
24	024ZD9-T1301-M2	2 x 12F, 2 mm	0.30 in [7.7 mm]	4.55 / 3.03 in	148 lbf [660 N]	33
48	048ZD9-T1301-M2	4 x 12F, 2 mm	0.33 in [8.5 mm]	4.72 / 3.35 in	148 lbf [660 N]	42
72	072ZD9-T1301-M2	6 x 12F, 2 mm	0.35 in [8.8 mm]	5.2 / 3.46 in	148 lbf [660 N]	42
96	096ZD9-T1301-M2	8 x 12F, 2 mm	0.40 in [10.2 mm]	6.02 / 4.02 in	148 lbf [660 N]	59
144	144ZD9-T1301-M2	12 x 12F, 2 mm	0.40 in [10.2 mm]	6.02 / 4.02 in	148 lbf [660 N]	61
288	288ZD9-T1301-M2	24 x 12F, 2 mm	0.63 in [16 mm]	12.6 / 6.3 in	148 lbf [660 N]	159

Corning MIC 250 2.0 Indoor Cable, Plenum (OFNP), SMF-28 Ultra: 250 µm fibers, 12 per subunit. Nominal values from the cable manufacturer. Bend radius (both tables): install, under pulling load / installed, long-term. Max pull is the short-term rating. Other counts on request.

BUILD WORKSHEET

ITEM	WHAT TO TELL US	YOUR SELECTION
Type	OSP (PTO-) or plenum (PTP-)	
Fiber count	OSP 12 to 144; plenum 12 to 288	
Cable type	OSP: installation, aerial, duct or other. Plenum: ribbon (R) or loose tube (L)	
Overall length	Feet	
End A	Connector and polish (LC, SC or MPO), breakout length and leg type; MPO: 12F or 24F, pinned or unpinned	
End B	As end A, or unterminated (U, plenum); both ends MPO: polarity Type A, B or C	
Quantity		

ORDERING

 OSP part number **PTO-[count]-[cable]-[end A]-[end B]-[length]F**

 Plenum part number **PTP-[count]-[cable]-[end A]-[end B]-[length]F**

COUNT

 Fibers, 3 digits: **012 ... 144** (PTO-),
012 ... 288 (PTP-)

CABLE

L = loose tube · **R** = ribbon (PTP-)
 PTO-: cable code from the worksheet

END A · END B

LC = LC/UPC · **LA** = LC/APC · **SC** = SC/UPC ·
SA = SC/APC · **MP** = MPO/MTP UPC · **MA** =
 MPO/MTP APC · **U** = unterminated (PTP-)

LENGTH

NNN = feet

PTP- single end terminated: end A connectorized, end B **U**. Both ends unterminated: **U-U**. MPO ends: add -[n]X[12|24]-[pinning]-[polarity] after the length, as on our MPO trunks: one MPO per 12 or 24 fibers (144F = 12X12 or 6X24); pinning F = unpinned (female), M = pinned (male), one letter per MPO end; polarity A, B (Universal) or C when both ends are MPO. No suffix = MPO-12, unpinned, Type B. Send the worksheet to sales for a part number and quote.

PLENUM EXAMPLES

PART NUMBER	DESCRIPTION
PTP-288-R-LC-U-150F	288F plenum ribbon, LC/UPC fan-out on end A, end B unterminated for splicing in the Fiber Entrance Cabinet, 150 ft
PTP-144-R-SA-U-200F	144F plenum ribbon, SC/APC fan-out on end A, end B unterminated, 200 ft
PTP-288-R-U-U-300F	288F plenum ribbon, both ends unterminated, 300 ft
PTP-048-L-LC-U-120F	48F plenum loose tube, LC/UPC breakout on end A, end B unterminated, 120 ft
PTP-144-R-MP-U-150F	144F plenum ribbon, 12 x MPO-12 UPC (US Conec MTP) unpinned on end A, end B unterminated, 150 ft
PTP-288-R-MA-U-200F-12X24-M	288F plenum ribbon, 12 x MPO-24 APC pinned (male) on end A, end B unterminated, 200 ft
PTP-144-L-U-U-250F	144F plenum loose tube, both ends unterminated, 250 ft

INSTALLATION NOTES

- ✓ **PTO- (OSP):** building-to-building and outside runs, landing on wall mount or rack mount panels
- ✓ **PTP- (plenum):** runs inside a building and rack to rack, including Fiber Entrance Cabinet exits
- ✓ Hold the bend radius and max pull in the cable tables
- ✓ Pull by the cable, never by the fan-out, legs or connectors; keep dust caps on until the run is in place
- ✓ Order length end to end; allow for slack, rises, drops and the splice end
- ✓ Clean and inspect every connector before mating

Contact sales for pricing. Test data and certificate of conformance available on request. Specifications subject to change. Rev A · 2026-10.