

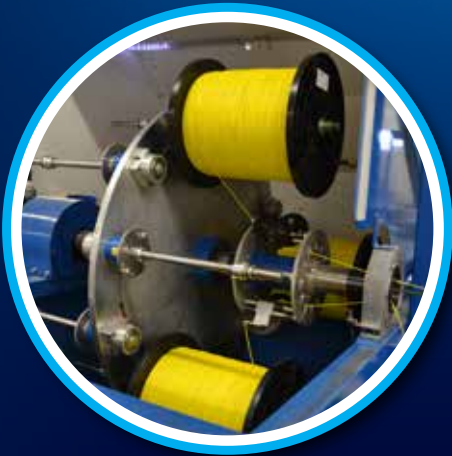


# 2024

PRODUCT CATALOG

# FIBER OPTIC

CABLE AND TUBING  
MANUFACTURER



plus  
CORNING®  
Optical Fiber

1-888-571-7111

[www.thelightconnection.com](http://www.thelightconnection.com)

# WELCOME TO THE LIGHT CONNECTION, INC.

## A Message from the President

Thank you for taking the time to read The Light Connection's (TLC) 2024 catalog. The Light Connection is an American company manufacturing fiber optic cable and tubing for the Fiber Optic Industry. Located in central New York and with over 40 years of fiber optic cable industry experience, TLC is proud to be a registered ISO 9001:2015 company and offer OFNR, OFNP, OFCR, OFCP and LSZH products all of which are RoHS compliant.

We recognize the value of quality and timely service to our customers as they grow and place demands on us as a supplier. Being a channel partner with Corning Optical Fiber allows TLC to manufacture Simplex, Duplex, Distribution (indoor and indoor/outdoor), Ribbon, Dry Loose Tube indoor/outdoor, Breakout, Micro-distribution, High density micro-distribution (data center) cables and all constructed with Corning's latest fiber offerings. All our standard cables are printed with 'plus Corning' on the jacket to assure customers that we use the finest optical fiber available. Many of our cable constructions are also available with (AIA) aluminum interlocking armor jacketing.

New for 2024, TLC will be increasing our manufacturing capacity to provide competitive lead times and maintain our excellent stock positions. In addition, we will be increasing our warehouse capacity enabling us to service customers more efficiently.



TLC's commitment to customer service, short lead times, excellent stock positions, custom capabilities and keeping low minimum order quantities has allowed for ease of doing business thus enabling TLC to grow along with our customers.

Thank you again for your interest in The Light Connection Inc. For more information please contact us at sales@thelightconnection.com.

Best regards,  
*Brian Mohar*  
PRESIDENT



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For more information please contact your local distributor  
\* Setup fees/MOQs may be required for some products.

## ATTENUATION STANDARDS TABLE

Standards for Cables - ANSI/TIA-568.3-D			
	Single Mode OS2	OM1/OM2	OM3/OM4
850nm	n/a	3.5 dB/km	3.0 dB/km
1300nm	n/a	1.0 dB/km	1.0 dB/km
1310nm	0.5 dB/km	n/a	n/a
1550nm	0.4 dB/km	n/a	n/a

TLC High-Density Micro Distribution Cable is composed of two contrasting color bound bundles of 12 colored glass optical fibers, aramid yarn, and a PVDF outer jacket. TLC High-Density Micro Distribution Cable is available in 12 TIA standard colors or special-order colors. UL Listed OFNP cables are available. Standard surface print denotes construction, NEC rating and fiber type, and includes footage markers. Custom print may also be accommodated.

**FEATURES**

- 250µm colored bare fiber
- Small O.D. for tight spaces
- NFPA 262 (Plenum)
- Available in all fiber types
- Meets the application requirement of National Electric Code (NEC) Article 770

**APPLICATIONS**

- Plenum
- Data Centers

**FOR PART NUMBER GUIDE SEE PAGE 30**

OFNP	
Storage Temp	-40° +70°C
Operating Temp	0° +70°C
Installation Temp	0° +60°C

ALSO AVAILABLE UPON REQUEST
• OM2

**SINGLEMODE (ITU-T G.657.A1)**

Part Number	Cable Rating	Nominal Diameter mm	Fiber Count	Weight lbs/km	Bend Radius (Install/Operate cm)
S09HD24CZNPY	OFNP	2.95	24	25	4.5/3.0
S09HD24CZNPY38	OFNP	3.8	24	30	5.7/3.8

**62.5/125 MULTIMODE OM1**

Part Number	Cable Rating	Nominal Diameter mm	Fiber Count	Weight lbs/km	Bend Radius (Install/Operate cm)
M62HD24C3NPO	OFNP	2.95	24	25	4.5/3.0
M62HD24C3NPO38	OFNP	3.8	24	30	5.7/3.8

**50/125 MULTIMODE OM3**

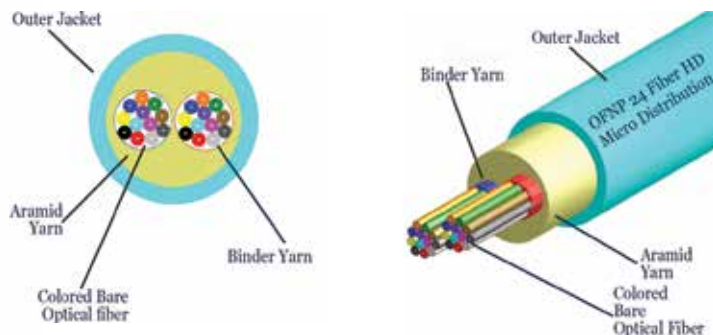
Part Number	Cable Rating	Nominal Diameter mm	Fiber Count	Weight lbs/km	Bend Radius (Install/Operate cm)
M50HD24CGNPA	OFNP	2.95	24	25	4.5/3.0
M50HD24CGNPA38	OFNP	3.8	24	30	5.7/3.8

**50/125 MULTIMODE OM4**

Part Number	Cable Rating	Nominal Diameter mm	Fiber Count	Weight lbs/km	Bend Radius (Install/Operate cm)
M50HD24C4NPA	OFNP	2.95	24	25	4.5/3.0
M50HD24C4NPA38	OFNP	3.8	24	30	5.7/3.8

**50/125 MULTIMODE OM5**

Part Number	Cable Rating	Nominal Diameter mm	Fiber Count	Weight lbs/km	Bend Radius (Install/Operate cm)
M50HD24C5NPLG	OFNP	2.95	24	25	4.5/3.0
M50HD24C5NPLG38	OFNP	3.8	24	30	5.7/3.8



TLC Micro-Distribution cable combines high fiber counts with a compact, space saving design. 2 to 12 colored fibers with aramid yarn are positioned in a 3 mm buffer tube. 8 tubes of 12 fibers are combined to make cables up to 96 fibers. Each subunit is numbered for ease of installation with OFNR & OFNP rated constructions available. TLC's Fanout Kits are a perfect match with Micro-Distribution.

**FEATURES**

- 250µm colored bare fibers
- Small O.D. for tight spaces
- UL 1666(Riser) and NFPA 262(Plenum)
- Available in all fiber types
- Meets the application requirement of National Electric Code (NEC) Article 770

**APPLICATIONS**

- Riser
- Plenum
- Data Center Assemblies

**FOR PART NUMBER GUIDE SEE PAGE 30**

**SINGLEMODE (ITU-T G.657.A1)**

OFNP	
Storage Temp	-40°/+70°C
Operating Temp	0°/+70°C
Installation Temp	0°/+60°C
OFNR	
Storage Temp	-40°/+70°C
Operating Temp	-20°/+70°C
Installation Temp	-10°/+60°C

ALSO AVAILABLE UPON REQUEST	
• OM1 and OM2	
• Optical fibers compliant with ITU-T G.657.A/B standards	

	Part Number	Cable Rating	Nominal Diameter mm	Fiber Count	Weight lbs/km	Bend Radius (Install/Operate cm)
RISER	S09MD02CZNR	OFNR	2.95	2	18	4.7/2.95
	S09MD06CZNR	OFNR	2.95	6	19	4.7/2.95
	S09MD12CZNR	OFNR	2.95	12	20	4.7/2.95
	S09MD24CZNR-Y	OFNR	8.20	24	91	12.3/8.2
	S09MD36CZNR3T-Y	OFNR	8.25	36	110	12.35/8.25
	S09MD48CZNR4T-Y	OFNR	8.60	48	157	12.9/8.6
	S09MD72CZNR6T-Y	OFNR	10.50	72	215	15.75/10.5
	S09MD96CZNR-Y	OFNR	13.0	96	295	19.5/13.0
	PLENUM	S09MD02CZNPY	OFNP	2.95	2	21
S09MD06CZNPY		OFNP	2.95	6	22	4.7/2.95
S09MD12CZNPY		OFNP	2.95	12	23	4.7/2.95
S09MD24CZNPY-Y-TW		OFNP	8.20	24	105	12.3/8.2
S09MD36CZNPY3T-Y		OFNP	8.25	36	130	12.35/8.25
S09MD48CZNPY4T-Y		OFNP	8.60	48	170	12.9/8.6
S09MD72CZNPY6T-Y		OFNP	10.50	72	252	15.75/10.5
S09MD96CZNPY-Y		OFNP	13.0	96	334	19.5/13.0

**50/125 MULTIMODE OM3**

	Part Number	Cable Rating	Nominal Diameter mm	Fiber Count	Weight lbs/km	Bend Radius (Install/Operate cm)
RISER	M50MD02CGNRA	OFNR	2.95	2	18	4.7/2.95
	M50MD06CGNRA	OFNR	2.95	6	19	4.7/2.95
	M50MD12CGNRA	OFNR	2.95	12	20	4.7/2.95
	M50MD24CGNRA-A	OFNR	8.20	24	91	12.3/8.2
	M50MD36CGNRA3T-A	OFNR	8.25	36	110	12.35/8.25
	M50MD48CGNRA4T-A	OFNR	8.60	48	157	12.9/8.6
	M50MD72CGNRA6T-A	OFNR	10.50	72	215	15.75/10.5
	M50MD96CGNRA-A	OFNR	13.0	96	295	19.5/13.0
PLENUM	M50MD02CGNPA	OFNP	2.95	2	21	4.7/2.95
	M50MD06CGNPA	OFNP	2.95	6	22	4.7/2.95
	M50MD12CGNPA	OFNP	2.95	12	23	4.7/2.95
	M50MD24CGNPA-A-TW	OFNP	8.20	24	105	12.3/8.2
	M50MD36CGNPA3T-A	OFNP	8.25	36	130	12.35/8.25
	M50MD48CGNPA4T-A	OFNP	8.60	48	170	12.9/8.6
	M50MD72CGNPA6T-A	OFNP	10.50	72	252	15.75/10.5
	M50MD96CGNPA-A	OFNP	13.0	96	334	19.5/13.0

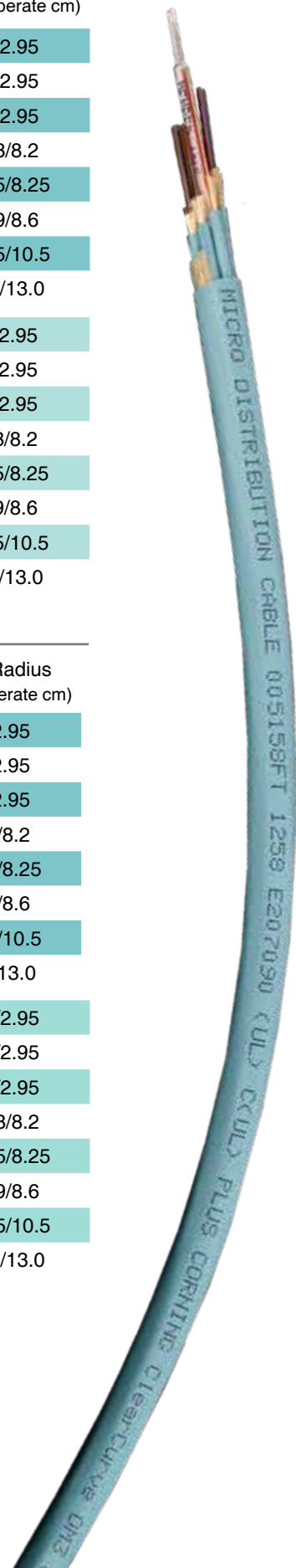
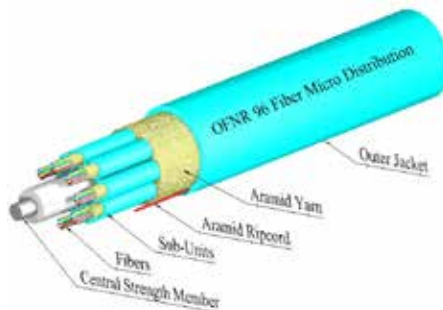
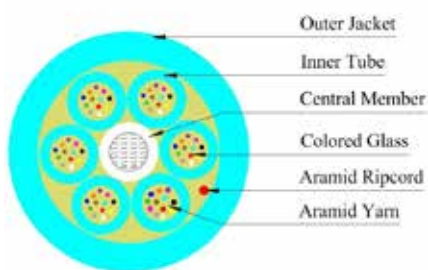


50/125 MULTIMODE OM4

	Part Number	Cable Rating	Nominal Diameter mm	Fiber Count	Weight lbs/km	Bend Radius (Install/Operate cm)
<b>RISER</b>	M50MD02C4NRA	OFNR	2.95	2	18	4.7/2.95
	M50MD06C4NRA	OFNR	2.95	6	19	4.7/2.95
	M50MD12C4NRA	OFNR	2.95	12	20	4.7/2.95
	M50MD24C4NRA-A	OFNR	8.20	24	91	12.3/8.2
	M50MD36C4NRA3T-A	OFNR	8.25	36	110	12.35/8.25
	M50MD48C4NRA4T-A	OFNR	8.60	48	157	12.9/8.6
	M50MD72C4NRA6T-A	OFNR	10.50	72	215	15.75/10.5
M50MD96C4NRA-A	OFNR	13.0	96	295	19.5/13.0	
<b>PLENUM</b>	M50MD02C4NPA	OFNP	2.95	2	21	4.7/2.95
	M50MD06C4NPA	OFNP	2.95	6	22	4.7/2.95
	M50MD12C4NPA	OFNP	2.95	12	23	4.7/2.95
	M50MD24C4NPA-A-TW	OFNP	8.20	24	105	12.3/8.2
	M50MD36C4NPA3T-A	OFNP	8.25	36	130	12.35/8.25
	M50MD48C4NPA4T-A	OFNP	8.60	48	170	12.9/8.6
	M50MD72C4NPA6T-A	OFNP	10.50	72	252	15.75/10.5
	M50MD96C4NPA-A	OFNP	13.0	96	334	19.5/13.0

50/125 MULTIMODE OM5

	Part Number	Cable Rating	Nominal Diameter mm	Fiber Count	Weight lbs/km	Bend Radius (Install/Operate cm)
<b>RISER</b>	M50MD02C5NRLG	OFNR	2.95	2	18	4.7/2.95
	M50MD06C5NRLG	OFNR	2.95	6	19	4.7/2.95
	M50MD12C5NRLG	OFNR	2.95	12	20	4.7/2.95
	M50MD24C5NRLG-LG	OFNR	8.20	24	91	12.3/8.2
	M50MD36C5NRLG3T-LG	OFNR	8.25	36	110	12.35/8.25
	M50MD48C5NRLG4T-LG	OFNR	8.60	48	157	12.9/8.6
	M50MD72C5NRLG6T-LG	OFNR	10.50	72	215	15.75/10.5
M50MD96C5NRLG-LG	OFNR	13.0	96	295	19.5/13.0	
<b>PLENUM</b>	M50MD02C5NPLG	OFNP	2.95	2	21	4.7/2.95
	M50MD06C5NPLG	OFNP	2.95	6	22	4.7/2.95
	M50MD12C5NPLG	OFNP	2.95	12	23	4.7/2.95
	M50MD24C5NPLG-LG-TW	OFNP	8.20	24	105	12.3/8.2
	M50MD36C5NPLG3T-LG	OFNP	8.25	36	130	12.35/8.25
	M50MD48C5NPLG4T-LG	OFNP	8.60	48	170	12.9/8.6
	M50MD72C5NPLG6T-LG	OFNP	10.50	72 </td <td>252</td> <td>15.75/10.5</td>	252	15.75/10.5
	M50MD96C5NPLG-LG	OFNP	13.0	96	334	19.5/13.0



In comparison to the Micro-distribution cables with 3mm subunits (previous page), the TLC Micro-distribution with 2mm subs offers even more space saving constructions. The smaller subunit (2mm) design allows for up to a 30% smaller footprint. Available with up to 12 subunits containing up to 12 color coded bare fibers, TLC offers up to 288 fiber products for all data center applications. Micro-distribution with 2mm subunits is offered in OFNP constructions only.

**FEATURES**

- Ultra space saving designs
- 250µm color coded bare fiber
- 12 bare fibers per subunit up to 288 fiber constructions
- Available in all fiber types
- Meets the application requirement of National Electric Code (NEC) Article 770 and are OFNP rated

**APPLICATIONS**

- Data Centers
- Plenum spaces
- Air Blown Installations

**FOR PART NUMBER GUIDE SEE PAGE 30**

**SINGLEMODE (ITU-T G.657.A1)**

OFNP	
Storage Temp	-40°/+70°C
Operating Temp	0°/+70°C
Installation Temp	0°/+60°C

ALSO AVAILABLE UPON REQUEST	
• OM1/OM2	
• Optical fibers compliant with ITU-T G.657.A/B standards	

	Part Number	Cable Rating	Nominal Diameter mm	Fiber Count	Weight lbs/km	Bend Radius (Install/Operate cm)
Plenum	S09MD02CZNPY20	OFNP	2.0	2	11	4.0/2.0
	S09MD12CZNPY20	OFNP	2.0	12	12.5	4.0/2.0
	S09MD24CZNPY20-Y	OFNP	6.3	24	87.5	12.6/6.3
	S09MD36CZNPY20-Y	OFNP	6.3	36	87.5	12.6/6.3
	S09MD48CZNPY20-Y	OFNP	6.6	48	100	13.2/6.6
	S09MD72CZNPY20-Y	OFNP	8.0	72	150	16.0/8.0
	S09MD96CZNPY20-Y	OFNP	9.3	96	200	18.6/9.3
	S09MD144CZNPY20-Y	OFNP	10.6	144	250	21.2/10.6
	S09MD288CZNPY20-Y	OFNP	14.3	288	556	28.6/14.3

**DOUBLE JACKET SINGLEMODE (ITU-T G.657.A1)**

	Part Number	Cable Rating	Nominal Diameter mm	Fiber Count	Weight lbs/km	Bend Radius (Install/Operate cm)
	S09MD12CZNPY20-DJ	OFNP	4.0	12	51	8.0/4.0

**50/125 MULTIMODE OM3**

	Part Number	Cable Rating	Nominal Diameter mm	Fiber Count	Weight lbs/km	Bend Radius (Install/Operate cm)
Plenum	M50MD02CGNPA20	OFNP	2.0	2	11	4.0/2.0
	M50MD12CGNPA20	OFNP	2.0	12	12.5	4.0/2.0
	M50MD24CGNPA20-A	OFNP	6.3	24	87.5	12.6/6.3
	M50MD36CGNPA20-A	OFNP	6.3	36	87.5	12.6/6.3
	M50MD48CGNPA20-A	OFNP	6.6	48	100	13.2/6.6
	M50MD72CGNPA20-A	OFNP	8.0	72	150	16.0/8.0
	M50MD96CGNPA20-A	OFNP	9.3	96	200	18.6/9.3
	M50MD144CGNPA20-A	OFNP	10.6	144	250	21.2/10.6
	M50MD288CGNPA20-A	OFNP	14.3	288	556	28.6/14.3

**DOUBLE JACKET 50/125 MULTIMODE OM3**

	Part Number	Cable Rating	Nominal Diameter mm	Fiber Count	Weight lbs/km	Bend Radius (Install/Operate cm)
	M50MD12CGNPA20-DJ	OFNP	4.0	2	51	8.0/4.0

**Have a Jetted Cable (Air Blown Fiber) requirement?**  
 TLC now offers Jetted Cable solutions to accommodate these types of installations. The TLC micro-distribution cable's unique design has been tested by predominant leaders in the Jetted Fiber industry and is highly recommended for Jetted Cable installations. Call TLC for "end to end" solutions for all your Jetted Cable installation requirements.



50/125 MULTIMODE OM4

	Part Number	Cable Rating	Nominal Diameter mm	Fiber Count	Weight lbs/km	Bend Radius (Install/Operate cm)
Plenum	M50MD02C4NPA20	OFNP	2.0	2	11	4.0/2.0
	M50MD12C4NPA20	OFNP	2.0	12	12.5	4.0/2.0
	M50MD24C4NPA20-A	OFNP	6.3	24	87.5	12.6/6.3
	M50MD36C4NPA20-A	OFNP	6.3	36	87.5	12.6/6.3
	M50MD48C4NPA20-A	OFNP	6.6	48	100	13.2/6.6
	M50MD72C4NPA20-A	OFNP	8.0	72	150	16.0/8.0
	M50MD96C4NPA20-A	OFNP	9.3	96	200	18.6/9.3
	M50MD144C4NPA20-A	OFNP	10.6	144	250	21.2/10.6
	M50MD288C4NPA20-A	OFNP	14.3	288	556	28.6/14.3

DOUBLE JACKET 50/125 MULTIMODE OM4

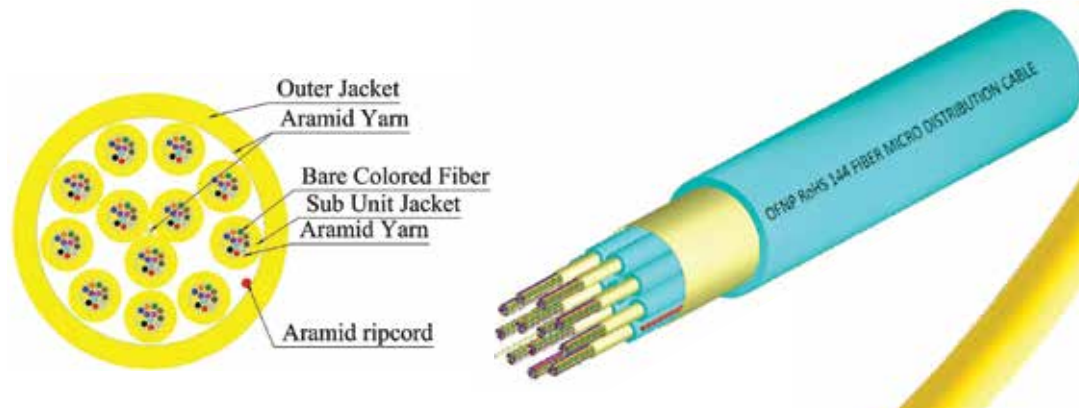
	Part Number	Cable Rating	Nominal Diameter mm	Fiber Count	Weight lbs/km	Bend Radius (Install/Operate cm)
	M50MD12C4NPA20-DJ	OFNP	4.0	2	51	8.0/4.0

50/125 MULTIMODE OM5

	Part Number	Cable Rating	Nominal Diameter mm	Fiber Count	Weight lbs/km	Bend Radius (Install/Operate cm)
Plenum	M50MD02C5NPLG20	OFNP	2.0	2	11	4.0/2.0
	M50MD12C5NPLG20	OFNP	2.0	12	12.5	4.0/2.0
	M50MD24C5NPLG20-LG	OFNP	6.3	24	87.5	12.6/6.3
	M50MD36C5NPLG20-LG	OFNP	6.3	36	87.5	12.6/6.3
	M50MD48C5NPLG20-LG	OFNP	6.6	48	100	13.2/6.6
	M50MD72C5NPLG20-LG	OFNP	8.0	72	150	16.0/8.0
	M50MD96C5NPLG20-LG	OFNP	9.3	96	200	18.6/9.3
	M50MD144C5NPLG20-LG	OFNP	10.6	144	250	21.2/10.6
	M50MD288C5NPLG20-LG	OFNP	14.3	288	556	28.6/14.3

DOUBLE JACKET 50/125 MULTIMODE OM5

	Part Number	Cable Rating	Nominal Diameter mm	Fiber Count	Weight lbs/km	Bend Radius (Install/Operate cm)
	M50MD12C5NPLG20-DJ	OFNP	4.0	2	51	8.0/4.0



TLC Indoor/Outdoor Loose Tube cable has no gel to complicate the termination process. The Dry Loose Tube technology and UV resistant black jacket allow for general outside applications. OFNR and OFNP rated constructions provide the flexibility to be deployed indoors without code constraints. Color coded inner tubes each containing 2 to 12 colored bare fibers allow for easy identification.

**FEATURES**

- Gel-Free waterblocked design
- UV protected rugged jacket
- 2 thru 144 fiber count
- Available in all fiber types

**APPLICATIONS**

- Riser
- Duct
- Plenum

**FOR PART NUMBER GUIDE SEE PAGE 30**

**SINGLEMODE (ITU-T G.657.A1)**

OFNP	
Storage Temp	-40° +70°C
Operating Temp	-40° +70°C
Installation Temp	0° +60°C
OFNR	
Storage Temp	-40° +70°C
Operating Temp	-40° +70°C
Installation Temp	-10° +60°C

ALSO AVAILABLE UPON REQUEST	
<ul style="list-style-type: none"> <li>• 50/125 MULTIMODE ClearCurve® OM2/OM5</li> <li>• Optical fibers compliant with ITU-T G.657.A/B standards</li> </ul>	

	Part Number	Cable Rating	Nominal Diameter (mm)	Fiber Count	Weight lbs/km	Bend Radius (Install/Operate cm)
<b>RISER</b>	S09DL02CZNRBL25	OFNR	4.80	2	64	7.2/4.8
	S09DL06CZNRBL25	OFNR	4.80	6	64	7.2/4.8
	S09DL12CZNRBL25	OFNR	4.80	12	64	7.2/4.8
	S09DL24CZNRBL25	OFNR	8.50	24	150	12.8/8.5
	S09DL36CZNRBL25	OFNR	8.50	36	153	12.8/8.5
	S09DL48CZNRBL25	OFNR	8.50	48	156	12.8/8.5
	S09DL72CZNRBL25	OFNR	10.4	72	225	15.6/10.4
	S09DL96CZNRBL25	OFNR	12.0	96	287	18.0/12.0
	S09DL144CZNRBL25	OFNR	13.0	144	309	19.5/13.0

<b>PLENUM</b>	S09DL02CZNPBL25	OFNP	4.80	2	78	7.2/4.8
	S09DL06CZNPBL25	OFNP	4.80	6	78	7.2/4.8
	S09DL12CZNPBL25	OFNP	4.80	12	78	7.2/4.8
	S09DL24CZNPBL25	OFNP	8.50	24	150	12.8/8.5
	S09DL36CZNPBL25	OFNP	8.50	36	150	12.8/8.5
	S09DL48CZNPBL25	OFNP	8.50	48	182	12.8/8.5
	S09DL72CZNPBL25	OFNP	10.4	72	252	15.6/10.4
	S09DL96CZNPBL25	OFNP	12.0	96	325	18.0/12.0
	S09DL144CZNPBL25	OFNP	13.0	144	388	19.5/13.0

**62.5/125 MULTIMODE OM1**

	Part Number	Cable Rating	Nominal Diameter (mm)	Fiber Count	Weight lbs/km	Bend Radius (Install/Operate cm)
<b>RISER</b>	M62DL02C3NRBL25	OFNR	4.80	2	64	7.2/4.8
	M62DL06C3NRBL25	OFNR	4.80	6	64	7.2/4.8
	M62DL12C3NRBL25	OFNR	4.80	12	64	7.2/4.8
	M62DL24C3NRBL25	OFNR	8.50	24	150	12.8/8.5
	M62DL36C3NRBL25	OFNR	8.50	36	153	12.8/8.5
	M62DL48C3NRBL25	OFNR	8.50	48	156	12.8/8.5
	M62DL72C3NRBL25	OFNR	10.4	72	225	15.6/10.4
	M62DL96C3NRBL25	OFNR	12.0	96	287	18.0/12.0
	M62DL144C3NRBL25	OFNR	13.0	144	309	19.5/13.0

<b>PLENUM</b>	M62DL02C3NPBL25	OFNP	4.80	2	78	7.2/4.8
	M62DL06C3NPBL25	OFNP	4.80	6	78	7.2/4.8
	M62DL12C3NPBL25	OFNP	4.80	12	78	7.2/4.8
	M62DL24C3NPBL25	OFNP	8.50	24	150	12.8/8.5
	M62DL36C3NPBL25	OFNP	8.50	36	150	12.8/8.5
	M62DL48C3NPBL25	OFNP	8.50	48	182	12.8/8.5
	M62DL72C3NPBL25	OFNP	10.4	72	252	15.6/10.4
	M62DL96C3NPBL25	OFNP	12.0	96	325	18.0/12.0
	M62DL144C3NPBL25	OFNP	13.0	144	388	19.5/13.0



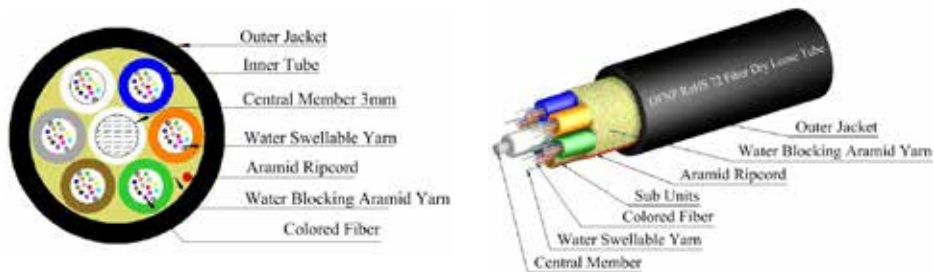


50/125 MULTIMODE OM3

	Part Number	Cable Rating	Nominal Diameter (mm)	Fiber Count	Weight lbs/km	Bend Radius (Install/Operate cm)
<b>RISER</b>	M50DL02CGNRBL25	OFNR	4.80	2	64	7.2/4.8
	M50DL06CGNRBL25	OFNR	4.80	6	64	7.2/4.8
	M50DL12CGNRBL25	OFNR	4.80	12	64	7.2/4.8
	M50DL24CGNRBL25	OFNR	8.50	24	150	12.8/8.5
	M50DL36CGNRBL25	OFNR	8.50	36	153	12.8/8.5
	M50DL48CGNRBL25	OFNR	8.50	48	156	12.8/8.5
	M50DL72CGNRBL25	OFNR	10.4	72	225	15.6/10.4
	M50DL96CGNRBL25	OFNR	12.0	96	287	18.0/12.0
	M50DL144CGNRBL25	OFNR	13.0	144	309	19.5/13.0
<b>PLENUM</b>	M50DL02CGNPBL25	OFNP	4.80	2	78	7.2/4.8
	M50DL06CGNPBL25	OFNP	4.80	6	78	7.2/4.8
	M50DL12CGNPBL25	OFNP	4.80	12	78	7.2/4.8
	M50DL24CGNPBL25	OFNP	8.50	24	150	12.8/8.5
	M50DL36CGNPBL25	OFNP	8.50	36	150	12.8/8.5
	M50DL48CGNPBL25	OFNP	8.50	48	182	12.8/8.5
	M50DL72CGNPBL25	OFNP	10.4	72	252	15.6/10.4
	M50DL96CGNPBL25	OFNP	12.0	96	325	18.0/12.0
	M50DL144CGNPBL25	OFNP	13.0	144	388	19.5/13.0

50/125 MULTIMODE OM4

	Part Number	Cable Rating	Nominal Diameter (mm)	Fiber Count	Weight lbs/km	Bend Radius (Install/Operate cm)
<b>RISER</b>	M50DL02C4NRBL25	OFNR	4.80	2	64	7.2/4.8
	M50DL06C4NRBL25	OFNR	4.80	6	64	7.2/4.8
	M50DL12C4NRBL25	OFNR	4.80	12	64	7.2/4.8
	M50DL24C4NRBL25	OFNR	8.50	24	150	12.8/8.5
	M50DL36C4NRBL25	OFNR	8.50	36	153	12.8/8.5
	M50DL48C4NRBL25	OFNR	8.50	48	156	12.8/8.5
	M50DL72C4NRBL25	OFNR	10.4	72	225	15.6/10.4
	M50DL96C4NRBL25	OFNR	12.0	96	287	18.0/12.0
	M50DL144C4NRBL25	OFNR	13.0	144	309	19.5/13.0
<b>PLENUM</b>	M50DL02C4NPBL25	OFNP	4.80	2	78	7.2/4.8
	M50DL06C4NPBL25	OFNP	4.80	6	78	7.2/4.8
	M50DL12C4NPBL25	OFNP	4.80	12	78	7.2/4.8
	M50DL24C4NPBL25	OFNP	8.50	24	150	12.8/8.5
	M50DL36C4NPBL25	OFNP	8.50	36	150	12.8/8.5
	M50DL48C4NPBL25	OFNP	8.50	48	182	12.8/8.5
	M50DL72C4NPBL25	OFNP	10.4	72	252	15.6/10.4
	M50DL96C4NPBL25	OFNP	12.0	96	325	18.0/12.0
	M50DL144C4NPBL25	OFNP	13.0	144	388	19.5/13.0



TLC Distribution Cables are designed for general indoor use. Available in all fiber types, a thick durable jacket offers excellent strength and protection during installations and restorations. The 900µm color coded tight buffers allow for easy identification and termination. Cables are available in OFNR and OFNP rated constructions and also a LSZH jacket.

**FEATURES**

- 900µm Tight Buffers
- Aramid Yarn Strength Members
- OFNR and OFNP rated construction
- Exclusive use of Corning® optical fibers

- Jacket print ensures product identification and fiber compatibility
- Buffers strip consistently, helpful for onsite termination
- Durable jacket offers added protection during installation and in rugged use applications

**APPLICATIONS**

- Riser
- Plenum

**FOR PART NUMBER GUIDE SEE PAGE 30**

**SINGLEMODE (ITU-T G.657.A1)**

OFNP	
Storage Temp	-40°/+70°C
Operating Temp	0°/+70°C
Installation Temp	0°/+60°C
OFNR	
Storage Temp	-40°/+70°C
Operating Temp	-20°/+70°C
Installation Temp	-10°/+60°C

ALSO AVAILABLE UPON REQUEST	
• 50/125 MULTIMODE ClearCurve® OM2/OM5	
• Optical fibers compliant with ITU-T G.657.A/B standards	

	Part Number	Cable Rating	Nominal Diameter (mm)	Fiber Count	Weight lbs/km	Bend Radius (Install/Operate cm)
RISER	S09DI02CZNR44	OFNR	4.4	2	36	6.6/4.4
	S09DI04CZNR44	OFNR	4.4	4	43	6.6/4.4
	S09DI06CZNR48	OFNR	4.8	6	51	7.2/4.8
	S09DI08CZNR58	OFNR	5.8	8	70	8.7/5.8
	S09DI12CZNR58	OFNR	5.8	12	74	8.7/5.8
	S09DI24CZNR78	OFNR	7.8	24	115	11.7/7.8
	S09DI48CZNR-Y	OFNR	15.4	48	410	23.1/15.4
	S09DI72CZNR-Y	OFNR	20.0	72	695	30.0/20.0
	S09DI96CZNR-Y	OFNR	22.9	96	938	34.4/22.9
	S09DI144CZNR-Y	OFNR	25.1	144	1050	37.7/25.1
PLENUM	S09DI02CZNPY44	OFNP	4.4	2	44	6.6/4.4
	S09DI04CZNPY44	OFNP	4.4	4	48	6.6/4.4
	S09DI06CZNPY48	OFNP	4.8	6	57	7.2/4.8
	S09DI08CZNPY58	OFNP	5.8	8	73	8.7/5.8
	S09DI12CZNPY58	OFNP	5.8	12	81	8.7/5.8
	S09DI24CZNPY78	OFNP	7.8	24	138	11.7/7.8
	S09DI48CZNPY-Y	OFNP	15.4	48	480	23.1/15.4
	S09DI72CZNPY-Y	OFNP	20.0	72	765	30.0/20.0
	S09DI96CZNPY-Y	OFNP	22.9	96	1140	34.4/22.9

**62.5/125 MULTIMODE OM1**

	Part Number	Cable Rating	Nominal Diameter (mm)	Fiber Count	Weight lbs/km	Bend Radius (Install/Operate cm)
RISER	M62DI02C3NRO44	OFNR	4.4	2	36	6.6/4.4
	M62DI04C3NRO44	OFNR	4.4	4	43	6.6/4.4
	M62DI06C3NRO48	OFNR	4.8	6	51	7.2/4.8
	M62DI08C3NRO58	OFNR	5.8	8	70	8.7/5.8
	M62DI12C3NRO58	OFNR	5.8	12	74	8.7/5.8
	M62DI24C3NRO78	OFNR	7.8	24	115	11.7/7.8
	M62DI48C3NRO-O	OFNR	15.4	48	410	23.1/15.4
	M62DI72C3NRO-O	OFNR	20.0	72	695	30.0/20.0
	M62DI96C3NRO-O	OFNR	22.9	96	938	34.4/22.9
	M62DI144C3NRO-O	OFNR	25.1	144	1050	37.7/25.1
PLENUM	M62DI02C3NPO44	OFNP	4.4	2	44	6.6/4.4
	M62DI04C3NPO44	OFNP	4.4	4	48	6.6/4.4
	M62DI06C3NPO48	OFNP	4.8	6	57	7.2/4.8
	M62DI08C3NPO58	OFNP	5.8	8	73	8.7/5.8
	M62DI12C3NPO58	OFNP	5.8	12	81	8.7/5.8
	M62DI24C3NPO78	OFNP	7.8	24	138	11.7/7.8
	M62DI48C3NPO-O	OFNP	15.4	48	480	23.1/15.4
	M62DI72C3NPO-O	OFNP	20.0	72	765	30.0/20.0
	M62DI96C3NPO-O	OFNP	22.9	96	1140	34.4/22.9

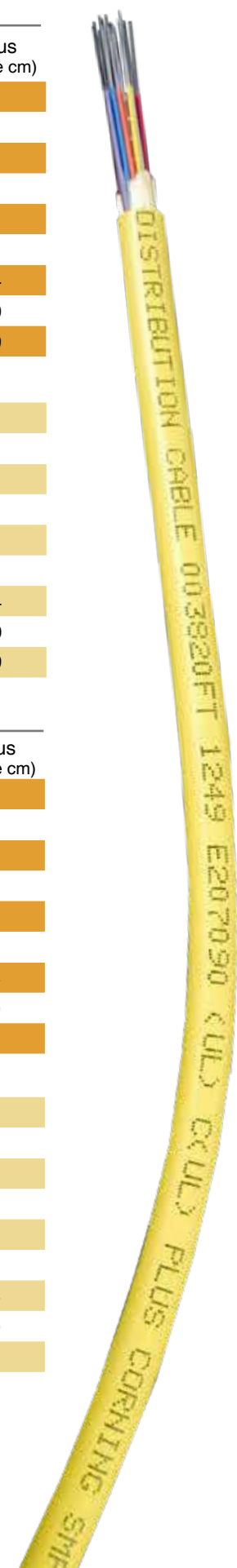
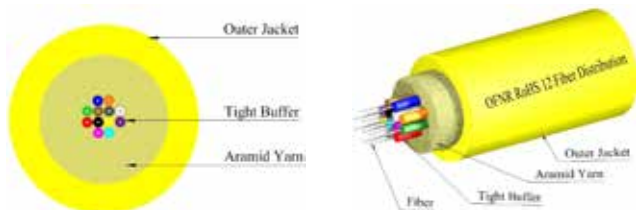


### 50/125 MULTIMODE OM3

	Part Number	Cable Rating	Nominal Diameter (mm)	Fiber Count	Weight lbs/km	Bend Radius (Install/Operate cm)
<b>RISER</b>	M50DI02CGNRA44	OFNR	4.4	2	36	6.6/4.4
	M50DI04CGNRA44	OFNR	4.4	4	43	6.6/4.4
	M50DI06CGNRA48	OFNR	4.8	6	51	7.2/4.8
	M50DI08CGNRA58	OFNR	5.8	8	70	8.7/5.8
	M50DI12CGNRA58	OFNR	5.8	12	74	8.7/5.8
	M50DI24CGNRA78	OFNR	7.8	24	115	11.7/7.8
	M50DI48CGNRA-A	OFNR	15.4	48	410	23.1/15.4
	M50DI72CGNRA-A	OFNR	20.0	72	695	30.0/20.0
	M50DI96CGNRA-A	OFNR	22.9	96	938	34.4/22.9
	M50DI144CGNRA-A	OFNR	25.1	144	1050	37.7/25.1
<b>PLENUM</b>	M50DI02CGNPA44	OFNP	4.4	2	44	6.6/4.4
	M50DI04CGNPA44	OFNP	4.4	4	48	6.6/4.4
	M50DI06CGNPA48	OFNP	4.8	6	57	7.2/4.8
	M50DI08CGNPA58	OFNP	5.8	8	73	8.7/5.8
	M50DI12CGNPA58	OFNP	5.8	12	81	8.7/5.8
	M50DI24CGNPA78	OFNP	7.8	24	138	11.7/7.8
	M50DI48CGNPA-A	OFNP	15.4	48	480	23.1/15.4
	M50DI72CGNPA-A	OFNP	20.0	72	765	30.0/20.0
	M50DI96CGNPA-A	OFNP	22.9	96	1140	34.4/22.9

### 50/125 MULTIMODE OM4

	Part Number	Cable Rating	Nominal Diameter (mm)	Fiber Count	Weight lbs/km	Bend Radius (Install/Operate cm)
<b>RISER</b>	M50DI02C4NRA44	OFNR	4.4	2	36	6.6/4.4
	M50DI04C4NRA44	OFNR	4.4	4	43	6.6/4.4
	M50DI06C4NRA48	OFNR	4.8	6	51	7.2/4.8
	M50DI08C4NRA58	OFNR	5.8	8	70	8.7/5.8
	M50DI12C4NRA58	OFNR	5.8	12	74	8.7/5.8
	M50DI24C4NRA78	OFNR	7.8	24	115	11.7/7.8
	M50DI48C4NRA-A	OFNR	15.4	48	410	23.1/15.4
	M50DI72C4NRA-A	OFNR	20.0	72	695	30.0/20.0
	M50DI96C4NRA-A	OFNR	22.9	96	938	34.4/22.9
	M50DI144C4NRA-A	OFNR	25.1	144	1050	37.7/25.1
<b>PLENUM</b>	M50DI02C4NPA44	OFNP	4.4	2	44	6.6/4.4
	M50DI04C4NPA44	OFNP	4.4	4	48	6.6/4.4
	M50DI06C4NPA48	OFNP	4.8	6	57	7.2/4.8
	M50DI08C4NPA58	OFNP	5.8	8	73	8.7/5.8
	M50DI12C4NPA58	OFNP	5.8	12	81	8.7/5.8
	M50DI24C4NPA78	OFNP	7.8	24	138	11.7/7.8
	M50DI48C4NPA-A	OFNP	15.4	48	480	23.1/15.4
	M50DI72C4NPA-A	OFNP	20.0	72	765	30.0/20.0
	M50DI96C4NPA-A	OFNP	22.9	96	1140	34.4/22.9



A UV resistant jacket available in OFNR or OFNP constructions allow TLC indoor/outdoor cables to be used for general indoor applications without fire code constraints while have the flexibility for outdoor deployment. Constructions consist of 900µm color coded tight buffers and water blocking aramid yarn.

**FEATURES**

- 900µm Tight Buffers
- Water blocking aramid yarn strength members
- UV resistant jacket, OFNR and OFNP rated construction

- Exclusive use of Corning® optical fibers
- Durable jacket offers added protection during installation and in rugged use applications

**APPLICATIONS**

- Riser
- Plenum
- Duct

**FOR PART NUMBER GUIDE SEE PAGE 30**

**SINGLEMODE (ITU-T G.657.A1)**

OFNP	
Storage Temp	-40°/+70°C
Operating Temp	-40°/+70°C
Installation Temp	0°/+60°C
OFNR	
Storage Temp	-40°/+70°C
Operating Temp	-40°/+70°C
Installation Temp	-10°/+60°C

ALSO AVAILABLE UPON REQUEST	
<ul style="list-style-type: none"> <li>• 50/125 MULTIMODE ClearCurve® OM2/OM5</li> <li>• Optical fibers compliant with ITU-T G.657.A/B standards</li> </ul>	

	Part Number	Cable Rating	Nominal Diameter(mm)	Fiber Count	Weight lbs/km	Bend Radius (Install/Operate cm)
RISER	S09IO01CZNRBL30	OFNR	3.0	1	17	10mm
	S09IO01CZNPBL30	OFNP	3.0	1	20	10mm
	S09IO01CZNRBL48	OFNR	4.8	1	42	7.2/4.8
	S09IO01CZNPBL48	OFNP	4.8	1	48	7.2/4.8
	S09IO12CZNRBL58	OFNR	5.8	12	74	8.7/5.8
	S09IO04CZNRBL44	OFNR	4.4	4	43	6.6/4.4
	S09IO06CZNRBL48	OFNR	4.8	6	51	7.2/4.8
	S09IO08CZNRBL58	OFNR	5.8	8	70	8.7/5.8
	S09IO12CZNRBL58	OFNR	5.8	12	74	8.7/5.8
	S09IO24CZNRBL78	OFNR	7.8	24	115	11.7/7.8
	S09IO48CZNRBL	OFNR	15.4	48	410	23.1/15.4
	S09IO72CZNRBL	OFNR	20	72	695	30.0/20.0
	S09IO96CZNRBL	OFNR	22.9	96	938	34.4/22.9
	S09IO144CZNRBL	OFNR	25.1	144	1050	37.7/25.1
PLENUM	S09IO02CZNPBL44	OFNP	4.4	2	44	6.6/4.4
	S09IO04CZNPBL44	OFNP	4.4	4	48	6.6/4.4
	S09IO06CZNPBL48	OFNP	4.8	6	57	7.2/4.8
	S09IO08CZNPBL58	OFNP	5.8	8	73	8.7/5.8
	S09IO12CZNPBL58	OFNP	5.8	12	81	8.7/5.8
	S09IO24CZNPBL78	OFNP	7.8	24	138	11.7/7.8
	S09IO48CZNPBL	OFNP	15.4	48	480	23.1/15.4
	S09IO72CZNPBL	OFNP	20	72	765	30.0/20.0
	S09IO96CZNPBL	OFNP	22.9	96	1140	34.4/22.9

**62.5/125 MULTIMODE OMI**

	Part Number	Cable Rating	Nominal Diameter(mm)	Fiber Count	Weight lbs/km	Bend Radius (Install/Operate cm)
RISER	M62IO02C3NRBL44	OFNR	4.4	2	36	6.6/4.4
	M62IO04C3NRBL44	OFNR	4.4	4	43	6.6/4.4
	M62IO06C3NRBL48	OFNR	4.8	6	51	7.2/4.8
	M62IO08C3NRBL58	OFNR	5.8	8	70	8.7/5.8
	M62IO12C3NRBL58	OFNR	5.8	12	74	8.7/5.8
	M62IO24C3NRBL78	OFNR	7.8	24	115	11.7/7.8
	M62IO48C3NRBL	OFNR	15.4	48	410	23.1/15.4
	M62IO72C3NRBL	OFNR	20	72	695	30.0/20.0
	M62IO96C3NRBL	OFNR	22.9	96	938	34.4/22.9
	M62IO144C3NRBL	OFNR	25.1	144	1050	37.7/25.1
PLENUM	M62IO02C3NPBL44	OFNP	4.4	2	44	6.6/4.4
	M62IO04C3NPBL44	OFNP	4.4	4	48	6.6/4.4
	M62IO06C3NPBL48	OFNP	4.8	6	57	7.2/4.8
	M62IO08C3NPBL58	OFNP	5.8	8	73	8.7/5.8
	M62IO12C3NPBL58	OFNP	5.8	12	81	8.7/5.8
	M62IO24C3NPBL78	OFNP	7.8	24	138	11.7/7.8
	M62IO48C3NPBL	OFNP	15.4	48	480	23.1/15.4
	M62IO72C3NPBL	OFNP	20	72	765	30.0/20.0
	M62IO96C3NPBL	OFNP	22.9	96	1140	34.4/22.9

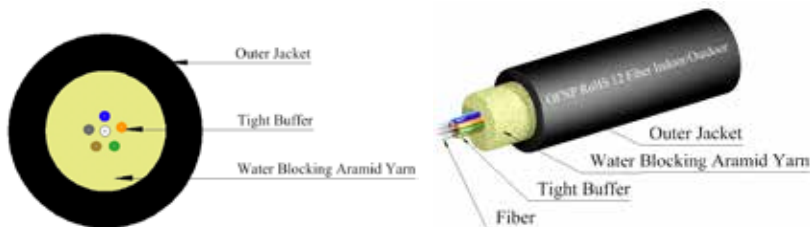


50/125 MULTIMODE OM3

	Part Number	Cable Rating	Nominal Diameter(mm)	Fiber Count	Weight lbs/km	Bend Radius (Install/Operate cm)
<b>RISER</b>	M50IO02CGNRBL44	OFNR	4.4	2	36	6.6/4.4
	M50IO04CGNRBL44	OFNR	4.4	4	43	6.6/4.4
	M50IO06CGNRBL48	OFNR	4.8	6	51	7.2/4.8
	M50IO08CGNRBL58	OFNR	5.8	8	70	8.7/5.8
	M50IO12CGNRBL58	OFNR	5.8	12	74	8.7/5.8
	M50IO24CGNRBL78	OFNR	7.8	24	115	11.7/7.8
	M50IO48CGNRBL	OFNR	15.4	48	410	23.1/15.4
	M50IO72CGNRBL	OFNR	20	72	695	30.0/20.0
	M50IO96CGNRBL	OFNR	22.9	96	938	34.4/22.9
	M50IO144CGNRBL	OFNR	25.1	144	1050	37.7/25.1
<b>PLENUM</b>	M50IO02CGNPBL44	OFNP	4.4	2	44	6.6/4.4
	M50IO04CGNPBL44	OFNP	4.4	4	48	6.6/4.4
	M50IO06CGNPBL48	OFNP	4.8	6	57	7.2/4.8
	M50IO08CGNPBL58	OFNP	5.8	8	73	8.7/5.8
	M50IO12CGNPBL58	OFNP	5.8	12	81	8.7/5.8
	M50IO24CGNPBL78	OFNP	7.8	24	138	11.7/7.8
	M50IO48CGNPBL	OFNP	15.4	48	480	23.1/15.4
	M50IO72CGNPBL	OFNP	20	72	765	30.0/20.0
	M50IO96CGNPBL	OFNP	22.9	96	1140	34.4/22.9

50/125 MULTIMODE OM4

	Part Number	Cable Rating	Nominal Diameter (mm)	Fiber Count	Weight lbs/km	Bend Radius (Install/Operate cm)
<b>RISER</b>	M50IO02C4NRBL44	OFNR	4.4	2	36	6.6/4.4
	M50IO04C4NRBL44	OFNR	4.4	4	43	6.6/4.4
	M50IO06C4NRBL48	OFNR	4.8	6	51	7.2/4.8
	M50IO08C4NRBL58	OFNR	5.8	8	70	8.7/5.8
	M50IO12C4NRBL58	OFNR	5.8	12	74	8.7/5.8
	M50IO24C4NRBL78	OFNR	7.8	24	115	11.7/7.8
	M50IO48C4NRBL	OFNR	15.4	48	410	23.1/15.4
	M50IO72C4NRBL	OFNR	20	72	695	30.0/20.0
	M50IO96C4NRBL	OFNR	22.9	96	938	34.4/22.9
	M50IO144C4NRBL	OFNR	25.1	144	1050	37.7/25.1
<b>PLENUM</b>	M50IO02C4NPBL44	OFNP	4.4	2	44	6.6/4.4
	M50IO04C4NPBL44	OFNP	4.4	4	48	6.6/4.4
	M50IO06C4NPBL48	OFNP	4.8	6	57	7.2/4.8
	M50IO08C4NPBL58	OFNP	5.8	8	73	8.7/5.8
	M50IO12C4NPBL58	OFNP	5.8	12	81	8.7/5.8
	M50IO24C4NPBL78	OFNP	7.8	24	138	11.7/7.8
	M50IO48C4NPBL	OFNP	15.4	48	480	23.1/15.4
	M50IO72C4NPBL	OFNP	20	72	765	30.0/20.0
	M50IO96C4NPBL	OFNP	22.9	96	1140	34.4/22.9



TLC Duplex cables are designed for general patch cord production where consistency and uniformity are vital for fast, efficient terminations. Duplex cables are offered in several outside diameter sizes and meet all tooling and termination requirements.

**FEATURES**

- 3mm, 2mm, 1.8mm, 1.6mm and 1.2mm OD sizes meet all patch cord applications
- Easy stripability of tight buffer

**APPLICATIONS**

- Riser
- Plenum

**FOR PART NUMBER GUIDE SEE PAGE 30**

OFNP	
Storage Temp	-40°/ +70°C
Operating Temp	0°/ +70°C
Installation Temp	0°/ +60°C
OFNR	
Storage Temp	-40°/ +70°C
Operating Temp	-20°/ +70°C
Installation Temp	-10°/ +60°C

ALSO AVAILABLE UPON REQUEST	
• LSZH Jacket	
• 50/125 MULTIMODE ClearCurve® OM2	
• Optical fibers compliant with ITU-T G.657.A/B standards	

Diameter (mm)	Tight Buffer Size (Microns)
3.0	900
2.0	900
1.8	800
1.6	650
1.2	250µm Bare Fiber

3.0mm Zip	Part Number	Fiber Type	Cable Rating	Nominal Diameter mm	Fiber Count	Weight lbs/km	Bend Radius
	S09DX02CZNPY	SM	OFNP	2.95 x 6.1	2	40	10 mm
S09DX02CZNRY	SM	OFNR	2.95 x 6.1	2	34	10 mm	
M62DX02C3NPO	OM1	OFNP	2.95 x 6.1	2	40	75 mm	
M62DX02C3NRO	OM1	OFNR	2.95 x 6.1	2	34	75 mm	
M50DX02CGNPA	OM3	OFNP	2.95 x 6.1	2	40	7.5 mm	
M50DX02CGNRA	OM3	OFNR	2.95 x 6.1	2	34	7.5 mm	
M50DX02C4NPA	OM4	OFNP	2.95 x 6.1	2	40	7.5 mm	
M50DX02C4NRA	OM4	OFNR	2.95 x 6.1	2	34	7.5 mm	
M50DX02C5NPLG	OM5	OFNP	2.95 x 6.1	2	40	7.5 mm	
M50DX02C5NRLG	OM5	OFNR	2.95 x 6.1	2	34	7.5 mm	

2.0mm Zip	Part Number	Fiber Type	Cable Rating	Nominal Diameter mm	Fiber Count	Weight lbs/km	Bend Radius
	S09DX02CZNPY20	SM	OFNP	1.95 x 4.1	2	28	10 mm
S09DX02CZNRY20	SM	OFNR	1.95 x 4.1	2	26	10 mm	
M62DX02C3NPO20	OM1	OFNP	1.95 x 4.1	2	28	75 mm	
M62DX02C3NRO20	OM1	OFNR	1.95 x 4.1	2	26	75 mm	
M50DX02CGNPA20	OM3	OFNP	1.95 x 4.1	2	28	7.5 mm	
M50DX02CGNRA20	OM3	OFNR	1.95 x 4.1	2	26	7.5 mm	
M50DX02C4NPA20	OM4	OFNP	1.95 x 4.1	2	28	7.5 mm	
M50DX02C4NRA20	OM4	OFNR	1.95 x 4.1	2	26	7.5 mm	
M50DX02C5NPLG20	OM5	OFNP	1.95 x 4.1	2	28	7.5 mm	
M50DX02C5NRLG20	OM5	OFNR	1.95 x 4.1	2	26	7.5 mm	

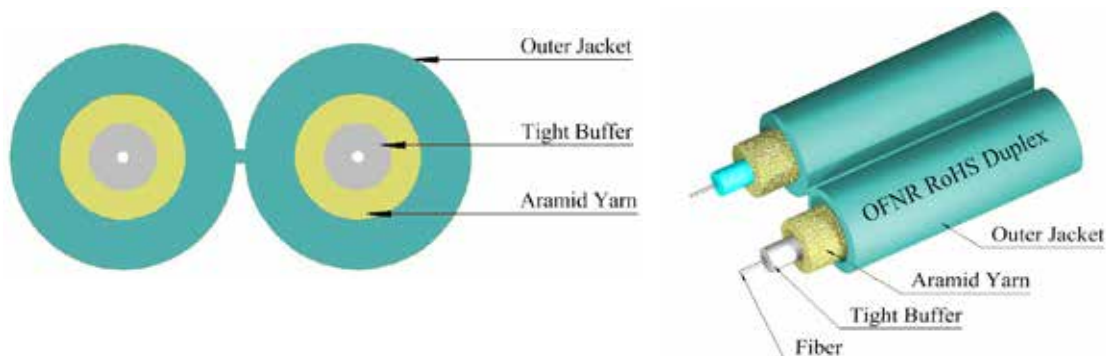
1.8mm Zip	Part Number	Fiber Type	Cable Rating	Nominal Diameter mm	Fiber Count	Weight lbs/km	Bend Radius
	S09DX02CZNPY18	SM	OFNP	1.80 x 3.7	2	20	10 mm
S09DX02CZNRY18	SM	OFNR	1.80 x 3.7	2	18	10 mm	
M62DX02C3NPO18	OM1	OFNP	1.80 x 3.7	2	20	75 mm	
M62DX02C3NRO18	OM1	OFNR	1.80 x 3.7	2	18	75 mm	
M50DX02CGNPA18	OM3	OFNP	1.80 x 3.7	2	20	7.5 mm	
M50DX02CGNRA18	OM3	OFNR	1.80 x 3.7	2	18	7.5 mm	
M50DX02C4NPA18	OM4	OFNP	1.80 x 3.7	2	20	7.5 mm	
M50DX02C4NRA18	OM4	OFNR	1.80 x 3.7	2	18	7.5 mm	
M50DX02C5NPLG18	OM5	OFNP	1.80 x 3.7	2	20	7.5 mm	
M50DX02C5NRLG18	OM5	OFNR	1.80 x 3.7	2	18	7.5 mm	



	Part Number	Fiber Type	Cable Rating	Nominal Diameter mm	Fiber Count	Weight lbs/km	Bend Radius
1.6mm Zip	S09DX02CZNPY16	SM	OFNP	1.60 x 3.3	2	14	10 mm
	S09DX02CZNRY16	SM	OFNR	1.60 x 3.3	2	12	10 mm
	M62DX02C3NPO16	OM1	OFNP	1.60 x 3.3	2	14	75 mm
	M62DX02C3NRO16	OM1	OFNR	1.60 x 3.3	2	12	75 mm
	M50DX02CGNPA16	OM3	OFNP	1.60 x 3.3	2	14	7.5 mm
	M50DX02CGNRA16	OM3	OFNR	1.60 x 3.3	2	12	7.5 mm
	M50DX02C4NPA16	OM4	OFNP	1.60 x 3.3	2	14	7.5 mm
	M50DX02C4NRA16	OM4	OFNR	1.60 x 3.3	2	12	7.5 mm
	M50DX02C5NPLG16	OM5	OFNP	1.60 x 3.3	2	14	7.5 mm
	M50DX02C5NRLG16	OM5	OFNR	1.60 x 3.3	2	12	7.5 mm

	Part Number	Fiber Type	Cable Rating	Nominal Diameter mm	Fiber Count	Weight lbs/km	Bend Radius
1.2mm Zip	S09DX02CZNPY12	SM	OFNP	1.20 x 2.45	2	11	10 mm
	M62DX02C3NPO12	OM1	OFNP	1.20 x 2.45	2	11	75 mm
	M50DX02CGNPA12	OM3	OFNP	1.20 x 2.45	2	11	7.5 mm
	M50DX02C4NPA12	OM4	OFNP	1.20 x 2.45	2	11	7.5 mm
	M50DX02C5NPLG12	OM5	OFNP	1.20 x 2.45	2	11	7.5 mm

	Part Number	Fiber Type	Cable Rating	Nominal Diameter mm	Fiber Count	Weight lbs/km	Bend Radius
3.0mm Round Duplex	S09RX02CZNPY	SM	OFNP	2.85	2	18	10 mm
	S09RX02CZNRY	SM	OFNR	2.85	2	17	10 mm
	M62RX02C3NPO	OM1	OFNP	2.85	2	18	75 mm
	M62RX02C3NRO	OM1	OFNR	2.85	2	17	75 mm
	M50RX02CGNPA	OM3	OFNP	2.85	2	18	7.5 mm
	M50RX02CGNRA	OM3	OFNR	2.85	2	17	7.5 mm
	M50RX02C4NPA	OM4	OFNP	2.85	2	18	7.5 mm
	M50RX02C4NRA	OM4	OFNR	2.85	2	17	7.5 mm
	M50RX02C5NPLG	OM5	OFNP	2.85	2	18	7.5 mm
	M50RX05C4NRLG	OM5	OFNR	2.85	2	17	7.5 mm



TLC Simplex Cables are designed for general patch cord production where consistency and uniformity are vital for fast efficient terminations. Simplex cables are offered in several outside diameter sizes to meet all tooling and termination requirements.

**FEATURES**

- 3mm, 2mm, 1.8mm, 1.6mm and 1.2mm OD sizes meet all patch cord applications
- Easy stripability of tight buffer

**APPLICATIONS**

- Riser
- Plenum

**FOR PART NUMBER GUIDE SEE PAGE 30**

OFNP	
Storage Temp	-40°/+70°C
Operating Temp	0°/+70°C
Installation Temp	0°/+60°C
OFNR	
Storage Temp	-40°/+70°C
Operating Temp	-20°/+70°C
Installation Temp	-10°/+60°C

ALSO AVAILABLE UPON REQUEST	
• LSZH Jacket	
• 50/125 MULTIMODE ClearCurve® OM2	
• Optical fibers compliant with ITU-T G.657.A/B standards	

Diameter (mm)	Tight Buffer Size (Microns)
3.0	900
2.0	900
1.8	800
1.6	650
1.2	250µm Bare Fiber

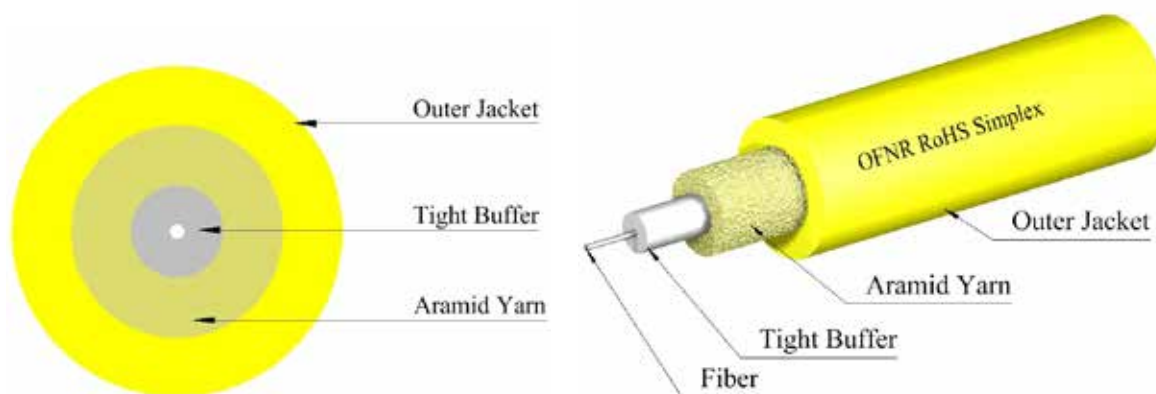
	Part Number	Fiber Type	Cable Rating	Nominal Diameter mm	Fiber Count	Weight lbs/km	Bend Radius
3.0mm	S09SX01CZNPY	SM	OFNP	2.95	1	20	10 mm
	S09SX01CZNRY	SM	OFNR	2.95	1	17	10 mm
	M62SX01C3NPO	OM1	OFNP	2.95	1	20	75 mm
	M62SX01C3NRO	OM1	OFNR	2.95	1	17	75 mm
	M50SX01CGNPA	OM3	OFNP	2.95	1	20	7.5 mm
	M50SX01CGNRA	OM3	OFNR	2.95	1	17	7.5 mm
	M50SX01C4NPA	OM4	OFNP	2.95	1	20	7.5 mm
	M50SX01C4NRA	OM4	OFNR	2.95	1	17	7.5 mm
	M50SX01C5NPLG	OM5	OFNP	2.95	1	20	7.5 mm
	M50SX01C5NRLG	OM5	OFNR	2.95	1	17	7.5 mm
	Part Number	Fiber Type	Cable Rating	Nominal Diameter mm	Fiber Count	Weight lbs/km	Bend Radius
2.0mm	S09SX01CZNPY20	SM	OFNP	1.95	1	14	10 mm
	S09SX01CZNRY20	SM	OFNR	1.95	1	13	10 mm
	M62SX01C3NPO20	OM1	OFNP	1.95	1	14	75 mm
	M62SX01C3NRO20	OM1	OFNR	1.95	1	13	75 mm
	M50SX01CGNPA20	OM3	OFNP	1.95	1	14	7.5 mm
	M50SX01CGNRA20	OM3	OFNR	1.95	1	13	7.5 mm
	M50SX01C4NPA20	OM4	OFNP	1.95	1	14	7.5 mm
	M50SX01C4NRA20	OM4	OFNR	1.95	1	13	7.5 mm
	M50SX01C5NPLG20	OM5	OFNP	1.95	1	14	7.5 mm
	M50SX01C5NRLG20	OM5	OFNR	1.95	1	13	7.5 mm
	Part Number	Fiber Type	Cable Rating	Nominal Diameter mm	Fiber Count	Weight lbs/km	Bend Radius
1.8mm	S09SX01CZNPY18	SM	OFNP	1.80	1	10	10 mm
	S09SX01CZNRY18	SM	OFNR	1.80	1	9	10 mm
	M62SX01C3NPO18	OM1	OFNP	1.80	1	10	75 mm
	M62SX01C3NRO18	OM1	OFNR	1.80	1	9	75 mm
	M50SX01CGNPA18	OM3	OFNP	1.80	1	10	7.5 mm
	M50SX01CGNRA18	OM3	OFNR	1.80	1	9	7.5 mm
	M50SX01C4NPA18	OM4	OFNP	1.80	1	10	7.5 mm
	M50SX01C4NRA18	OM4	OFNR	1.80	1	9	7.5 mm
	M50SX01C5NPLG18	OM5	OFNP	1.80	1	10	7.5 mm
	M50SX01C5NRLG18	OM5	OFNR	1.80	1	9	7.5 mm





	Part Number	Fiber Type	Cable Rating	Nominal Diameter mm	Fiber Count	Weight lbs/km	Bend Radius
1.6mm	S09SX01CZNPY16	SM	OFNP	1.60	1	7	10 mm
	S09SX01CZNRY16	SM	OFNR	1.60	1	6	10 mm
	M62SX01C3NPO16	OM1	OFNP	1.60	1	7	75 mm
	M62SX01C3NRO16	OM1	OFNR	1.60	1	6	75 mm
	M50SX01CGNPA16	OM3	OFNP	1.60	1	7	7.5 mm
	M50SX01CGNRA16	OM3	OFNR	1.60	1	6	7.5 mm
	M50SX01C4NPA16	OM4	OFNP	1.60	1	7	7.5 mm
	M50SX01C4NRA16	OM4	OFNR	1.60	1	6	7.5 mm
	M50SX01C5NPLG16	OM5	OFNP	1.60	1	7	7.5 mm
	M50SX01C5NRLG16	OM5	OFNR	1.60	1	6	7.5 mm

	Part Number	Fiber Type	Cable Rating	Nominal Diameter mm	Fiber Count	Weight lbs/km	Bend Radius
1.2mm	S09SX01CZNPY12	SM	OFNP	1.20	1	5	10 mm
	M62SX01C3NPO12	OM1	OFNP	1.20	1	5	75 mm
	M50SX01CGNPO12	OM3	OFNP	1.20	1	5	7.5 mm
	M50SX01C4NPA12	OM4	OFNP	1.20	1	5	7.5 mm
	M50SX01C5NPLG12	OM5	OFNP	1.20	1	5	7.5 mm



Breakout cable consists of 2mm subunits (other sizes available) with 900µm tight buffers. Combining strength, flexibility and no need for fan-out kits or tubing when terminating, these rugged cables are ideal for indoor and indoor/outdoor applications. TLC offers Breakout cables from 2-18 fiber constructions with OFNR and OFNP ratings.

**FEATURES**

- 2.0mm sub-units
- 900µm tight buffered
- Flame Ratings – UL 1666(Riser) and NFPA 262(Plenum)
- Available in all fiber types
- Color coded sub-units available as requested

**APPLICATIONS**

- Riser
- Plenum

**FOR PART NUMBER GUIDE SEE PAGE 30**

**SINGLEMODE (ITU-T G.657.A1)**

OFNP	
Storage Temp	-40°/+70°C
Operating Temp	0°/+70°C
Installation Temp	0°/+60°C
OFNR	
Storage Temp	-40°/+70°C
Operating Temp	-20°/+70°C
Installation Temp	-10°/+60°C

ALSO AVAILABLE UPON REQUEST	
• 50/125 MULTIMODE ClearCurve® OM2/OM5	
• Optical fibers compliant with ITU-T G.657.A/B standards	
• LSZH Jacket	
• Indoor/Outdoor Breakout	

	Part Number	Cable Rating	Nominal Diameter mm	Fiber Count	Weight lbs/km	Bend Radius (Install/Operate cm)
RISER	S09BK02CZNR20-Y	OFNR	8.8	2	125	13.2/8.8
	S09BK04CZNR20-Y	OFNR	8.8	4	135	13.2/8.8
	S09BK06CZNR20-Y	OFNR	9	6	165	13.5/9.0
	S09BK08CZNR20-Y	OFNR	9.6	8	205	14.4/9.6
	S09BK12CZNR20-Y	OFNR	10.7	12	240	16.1/10.7
	S09BK18CZNR20-Y	OFNR	12.8	18	436	25.6/12.8
PLENUM	S09BK02CZNPY20-Y	OFNP	8.8	2	140	13.2/8.8
	S09BK04CZNPY20-Y	OFNP	8.8	4	150	13.2/8.8
	S09BK06CZNPY20-Y	OFNP	9	6	182	13.5/9.0
	S09BK08CZNPY20-Y	OFNP	9.6	8	232	14.4/9.6
	S09BK12CZNPY20-Y	OFNP	10.7	12	276	16.1/10.7

**62.5/125 MULTIMODE OMI**

	Part Number	Cable Rating	Nominal Diameter mm	Fiber Count	Weight lbs/km	Bend Radius (Install/Operate cm)
RISER	M62BK02C3NRO20-O	OFNR	8.8	2	125	13.2/8.8
	M62BK04C3NRO20-O	OFNR	8.8	4	135	13.2/8.8
	M62BK06C3NRO20-O	OFNR	9	6	165	13.5/9.0
	M62BK08C3NRO20-O	OFNR	9.6	8	205	14.4/9.6
	M62BK12C3NRO20-O	OFNR	10.7	12	240	16.1/10.7
	M62BK18C3NRO20-O	OFNR	12.8	18	436	25.6/12.8
PLENUM	M62BK02C3NPO20-O	OFNP	8.8	2	140	13.2/8.8
	M62BK04C3NPO20-O	OFNP	8.8	4	150	13.2/8.8
	M62BK06C3NPO20-O	OFNP	9	6	182	13.5/9.0
	M62BK08C3NPO20-O	OFNP	9.6	8	232	14.4/9.6
	M62BK12C3NPO20-O	OFNP	10.7	12	276	16.1/10.7

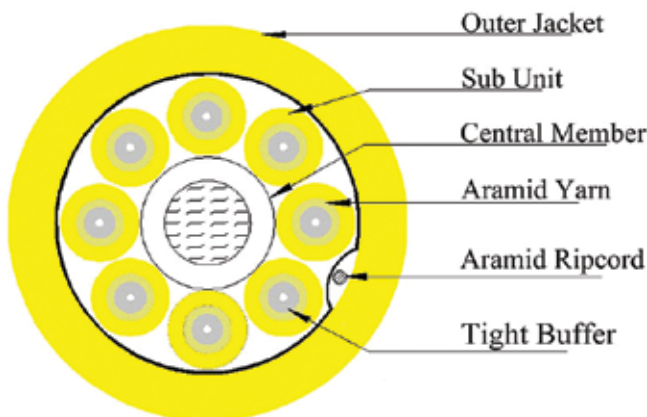


50/125 MULTIMODE OM3

	Part Number	Cable Rating	Nominal Diameter mm	Fiber Count	Weight lbs/km	Bend Radius (Install/Operate cm)
RISER	M50BK02CGNRA20-A	OFNR	8.8	2	125	13.2/8.8
	M50BK04CGNRA20-A	OFNR	8.8	4	135	13.2/8.8
	M50BK06CGNRA20-A	OFNR	9	6	165	13.5/9.0
	M50BK08CGNRA20-A	OFNR	9.6	8	205	14.4/9.6
	M50BK12CGNRA20-A	OFNR	10.7	12	240	16.1/10.7
	M50BK18CGNRA20-A	OFNR	12.8	18	436	25.6/12.8
PLENUM	M50BK02CGNPA20-A	OFNP	8.8	2	140	13.2/8.8
	M50BK04CGNPA20-A	OFNP	8.8	4	150	13.2/8.8
	M50BK06CGNPA20-A	OFNP	9	6	182	13.5/9.0
	M50BK08CGNPA20-A	OFNP	9.6	8	232	14.4/9.6
	M50BK12CGNPA20-A	OFNP	10.7	12	276	16.1/10.7

50/125 MULTIMODE OM4

	Part Number	Cable Rating	Nominal Diameter mm	Fiber Count	Weight lbs/km	Bend Radius (Install/Operate cm)
RISER	M50BK02C4NRA20-A	OFNR	8.8	2	125	13.2/8.8
	M50BK04C4NRA20-A	OFNR	8.8	4	135	13.2/8.8
	M50BK06C4NRA20-A	OFNR	9	6	165	13.5/9.0
	M50BK08C4NRA20-A	OFNR	9.6	8	205	14.4/9.6
	M50BK12C4NRA20-A	OFNR	10.7	12	240	16.1/10.7
	M50BK18C4NRA20-A	OFNR	12.8	18	436	25.6/12.8
PLENUM	M50BK02C4NPA20-A	OFNP	8.8	2	140	13.2/8.8
	M50BK04C4NPA20-A	OFNP	8.8	4	150	13.2/8.8
	M50BK06C4NPA20-A	OFNP	9	6	182	13.5/9.0
	M50BK08C4NPA20-A	OFNP	9.6	8	232	14.4/9.6
	M50BK12C4NPA20-A	OFNP	10.7	12	276	16.1/10.7



TLC's flat ribbon cable is compatible with the current industry tools and termination products (mainly MTP and MPO connectors). In OFNR and OFNP constructions as well as a LSZH jacket, TLC offers fiber counts from 2-12. Unrated bare ribbon fiber also available.

**FEATURES**

- Aramid strength member
- Standard count is 12 fiber with other counts available
- Compatible with all the current industry termination products
- Bare ribbon fiber also available
- Fan-Out Kits are available

**APPLICATIONS**

- Riser
- Plenum
- Bare Ribbon (unrated)

**FOR PART NUMBER GUIDE SEE PAGE 30**

**SINGLEMODE (ITU-T G.657.A1)**

OFNP	
Storage Temp	-40°/+70°C
Operating Temp	0°/+70°C
Installation Temp	0°/+60°C
OFNR	
Storage Temp	-40°/+70°C
Operating Temp	-20°/+70°C
Installation Temp	-10°/+60°C

ALSO AVAILABLE UPON REQUEST	
• Optical fibers compliant with ITU-T G.657.A/B standards	
• OM1 and OM2 fiber	
• LSZH Jacket	
• Bare Ribbon Fiber	
• 2 fiber Ribbon Cable	

	Part Number	Cable Rating	Nominal Diameter mm	Fiber Count	Weight lbs/km	Bend Radius (Install/Operate cm)
RISER	S09RB04CZNR	OFNR	2.35	4	13	3.5/2.3
	S09RB06CZNR	OFNR	2.35	6	15	3.5/2.3
	S09RB08CZNR	OFNR	2.35	8	17	3.5/2.3
	S09RB12CZNR	OFNR	2.35	12	19	3.5/2.3
PLENUM	S09RB04CZNP	OFNP	2.35	4	14	3.5/2.3
	S09RB06CZNP	OFNP	2.35	6	16	3.5/2.3
	S09RB08CZNP	OFNP	2.35	8	18	3.5/2.3
	S09RB12CZNP	OFNP	2.35	12	20	3.5/2.3
BARE	S09RB04CZ	n/a	0.33 x 1.2	4	1.4	10mm
	S09RB06CZ	n/a	0.33 x 1.7	6	2.0	10mm
	S09RB08CZ	n/a	0.33 x 2.2	8	2.8	10mm
	S09RB12CZ	n/a	0.33 x 3.3	12	4.0	10mm

**50/125 MULTIMODE OM3**

	Part Number	Cable Rating	Nominal Diameter mm	Fiber Count	Weight lbs/km	Bend Radius (Install/Operate cm)
RISER	M50RB04CGNRA	OFNR	2.35	4	13	3.5/2.3
	M50RB06CGNRA	OFNR	2.35	6	15	3.5/2.3
	M50RB08CGNRA	OFNR	2.35	8	17	3.5/2.3
	M50RB12CGNRA	OFNR	2.35	12	19	3.5/2.3
PLENUM	M50RB04CGNPA	OFNP	2.35	4	14	3.5/2.3
	M50RB06CGNPA	OFNP	2.35	6	16	3.5/2.3
	M50RB08CGNPA	OFNP	2.35	8	18	3.5/2.3
	M50RB12CGNPA	OFNP	2.35	12	20	3.5/2.3
BARE	M50RB04CG	n/a	0.33 x 1.2	4	1.4	10mm
	M50RB06CG	n/a	0.33 x 1.7	6	2.0	10mm
	M50RB08CG	n/a	0.33 x 2.2	8	2.8	10mm
	M50RB12CG	n/a	0.33 x 3.3	12	4.0	10mm

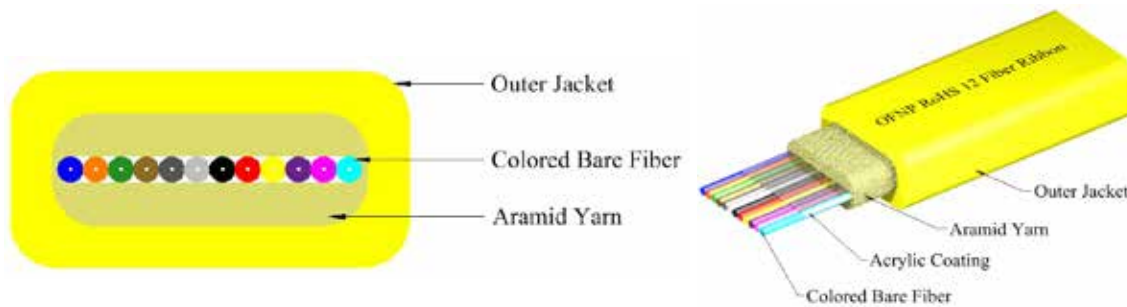


### 50/125 MULTIMODE OM4

	Part Number	Cable Rating	Nominal Diameter mm	Fiber Count	Weight lbs/km	Bend Radius (Install/Operate cm)
<b>RISER</b>	M50RB04C4NRA	OFNR	2.35	4	13	3.5/2.3
	M50RB06C4NRA	OFNR	2.35	6	15	3.5/2.3
	M50RB08C4NRA	OFNR	2.35	8	17	3.5/2.3
	M50RB12C4NRA	OFNR	2.35	12	19	3.5/2.3
<b>PLENUM</b>	M50RB04C4NPA	OFNP	2.35	4	14	3.5/2.3
	M50RB06C4NPA	OFNP	2.35	6	16	3.5/2.3
	M50RB08C4NPA	OFNP	2.35	8	18	3.5/2.3
	M50RB12C4NPA	OFNP	2.35	12	20	3.5/2.3
<b>BARE</b>	M50RB04C4	n/a	0.33 x 1.2	4	1.4	10mm
	M50RB06C4	n/a	0.33 x 1.7	6	2.0	10mm
	M50RB08C4	n/a	0.33 x 2.2	8	2.8	10mm
	M50RB12C4	n/a	0.33 x 3.3	12	4.0	10mm

### 50/125 MULTIMODE OM5

	Part Number	Cable Rating	Nominal Diameter mm	Fiber Count	Weight lbs/km	Bend Radius (Install/Operate cm)
<b>RISER</b>	M50RB04C5NRLG	OFNR	2.35	4	13	3.5/2.3
	M50RB06C5NRLG	OFNR	2.35	6	15	3.5/2.3
	M50RB08C5NRLG	OFNR	2.35	8	17	3.5/2.3
	M50RB12C5NRLG	OFNR	2.35	12	19	3.5/2.3
<b>PLENUM</b>	M50RB04C5NPLG	OFNP	2.35	4	14	3.5/2.3
	M50RB06C5NPLG	OFNP	2.35	6	16	3.5/2.3
	M50RB08C5NPLG	OFNP	2.35	8	18	3.5/2.3
	M50RB12C5NPLG	OFNP	2.35	12	20	3.5/2.3
<b>BARE</b>	M50RB04C5	n/a	0.33 x 1.2	4	1.4	10mm
	M50RB06C5	n/a	0.33 x 1.7	6	2.0	10mm
	M50RB08C5	n/a	0.33 x 2.2	8	2.8	10mm
	M50RB12C5	n/a	0.33 x 3.3	12	4.0	10mm



# AIA - (ALUMINUM INTERLOCKING ARMOR), OFCR AND OFCP

TLC Interlocking Armored Cables are standard cables inside a spirally wrapped aluminum strip for enhanced crush resistance and ruggedness. Available in Riser and Plenum rated constructions, interlocking armor can be used for general inside plant or indoor / outdoor applications in place of a conduit.

## FEATURES

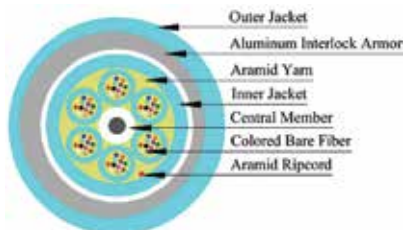
- Provides superior crush resistance for added protection
- Eliminates the need for inner duct or conduit thus saving installation time and costs
- OFCR and OFCP ratings allow AIA products to be installed throughout the facility

## APPLICATIONS

- Riser
- Plenum
- In place of conduit

### ALSO AVAILABLE UPON REQUEST

- All Corning® Standard Fiber Types
- Optical fibers compliant with ITU-T G.657.A/B standards
- Other fiber counts
- Tight Buffered Indoor/Outdoor



## INDOOR MICRO - DISTRIBUTION

### SINGLEMODE (ITU-T G.657.A1)

	Part Number	Fiber Count	Nominal Diameter mm	Weight lbs/km	Bend Radius
<b>RISER</b>	S09MD12CZNRV-AIA2	12	11.6	252	23.2 cm
	S09MD24CZNRV-Y-AIA2	24	16.2	438	32.4 cm
	S09MD48CZNRV4T-Y-AIA2	48	16.2	582	34.9 cm
	S09MD72CZNRV6T-Y-AIA	72	19.28	742	38.6 cm
<b>PLENUM</b>	S09MD12CZNPY-AIA2	12	11.6	274	23.2 cm
	S09MD24CZNPY-Y-TW-AIA2	24	16.2	490	32.4 cm
	S09MD48CZNPY4T-Y-AIA2	48	16.2	641	34.9 cm
	S09MD72CZNPY6T-Y-AIA	72	19.28	833	38.2 cm
	S09MD96CZNPY20-Y-AIA	96	17.25	725	34.5 cm
	S09MD144CZNPY20-Y-AIA	144	19.28	787	38.6 cm

### 50/125 MULTIMODE OM4

	Part Number	Fiber Count	Nominal Diameter mm	Weight lbs/km	Bend Radius
<b>RISER</b>	M50MD12C4NRA-AIA2	12	11.6	252	23.2 cm
	M50MD24C4NRA-A-AIA2	24	16.2	438	32.4 cm
	M50MD48C4NRA4T-A-AIA2	48	16.2	582	34.9 cm
	M50MD72C4NRA6T-A-AIA	72	19.28	742	38.6 cm
<b>PLENUM</b>	M50MD12C4NPA-AIA2	12	11.6	274	23.2 cm
	M50MD24C4NPA-A-TW-AIA2	24	16.2	490	32.4 cm
	M50MD48C4NPA4T-A-AIA2	48	16.2	641	34.9 cm
	M50MD72C4NPA6T-A-AIA	72	19.28	833	38.2 cm
	M50MD96C4NPA20-A-AIA	96	17.25	725	34.5 cm
	M50MD144C4NPA20-A-AIA	144	19.28	787	38.6 cm

# INDOOR DISTRIBUTION

## SINGLEMODE OS2

	Part Number	Fiber Count	Nominal Diameter mm	Weight lbs/km	Bend Radius
<b>RISER</b>	S09DI06CZNR48-AIA2	6	13.0	334	26.0 cm
	S09DI12CZNR58-AIA2	12	14.7	408	29.4 cm
	S09DI24CZNR78-AIA2	24	16.2	443	32.4 cm
	S09DI48CZNR-Y-AIA	48	25.4	910	50.8 cm
<b>PLENUM</b>	S09DI06CZNPY48-AIA2	6	13.0	368	26.0 cm
	S09DI12CZNPY58-AIA2	12	14.7	443	29.4 cm
	S09DI24CZNPY78-AIA2	24	16.2	490	32.4 cm
	S09DI48CZNPY-Y-AIA	48	25.4	1050	50.8 cm

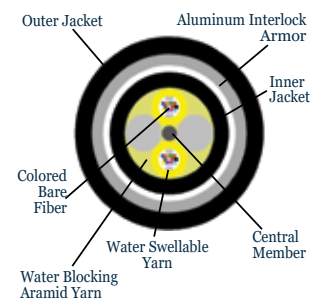
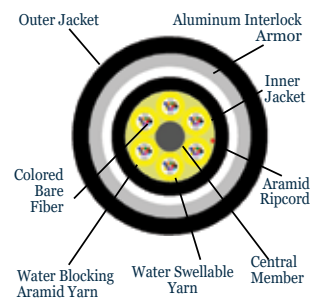
## 50/125 MULTIMODE OM4

	Part Number	Fiber Count	Nominal Diameter mm	Weight lbs/km	Bend Radius
<b>RISER</b>	M50DI06C4NRA-AIA2	6	13.0	334	26.0 cm
	M50DI12C4NRA-AIA2	12	14.7	408	29.4 cm
	M50DI24C4NRA-AIA2	24	16.2	443	32.4 cm
	M50DI48C4NRA-A-AIA	48	25.4	910	50.8 cm
<b>PLENUM</b>	M50DI06C4NPA48-AIA2	6	13.0	368	26.0 cm
	M50DI12C4NPA58-AIA2	12	14.7	443	29.4 cm
	M50DI24C4NPA78-AIA2	24	16.2	490	32.4 cm
	M50DI48C4NPA-A-AIA	48	25.4	1050	50.8 cm

## INDOOR/OUTDOOR DRY LOOSE TUBE

### 9/125 SINGLEMODE

	Part Number	Fiber Count	Nominal Diameter mm	Weight lbs/km	Bend Radius
<b>RISER</b>	S09DL06CZNRBL25-AIA2	6	13.0	322	26.0 cm
	S09DL12CZNRBL25-AIA2	12	13.0	322	26.0 cm
	S09DL24CZNRBL25-AIA2	24	16.2	479	32.4 cm
	S09DL48CZNRBL25-AIA2	48	16.2	479	32.4 cm
	S09DL72CZNRBL25-AIA	72	19.4	682	38.8 cm
	S09DL96CZNRBL25-AIA	96	23.7	775	47.4 cm
	S09DL144CZNRBL25-AIA	144	23.7	797	47.4 cm
<b>PLENUM</b>	S09DL06CZNPBL25-AIA2	6	13.0	358	26.0 cm
	S09DL12CZNPBL25-AIA2	12	13.0	358	26.0 cm
	S09DL24CZNPBL25-AIA2	24	16.2	532	32.4 cm
	S09DL48CZNPBL25-AIA2	48	16.2	532	32.4 cm
	S09DL72CZNPBL25-AIA	72	19.4	730	38.8 cm
	S09DL96CZNPBL25-AIA	96	23.7	843	47.4 cm
	S09DL144CZNPBL25-AIA	144	23.7	906	47.4 cm



The TLC 1.6mm, 2mm, 3mm, 3.8mm, and 4.8mm furcation tubing consists of an inner tube surrounded by aramid yarn and an overall PVC jacket. 12 standard colors are available. Inner tubes are available in specific sizes to accept either bare or buffered fibers.

TLC's 900µm furcation tubing is a single tube designed specifically for the protection and termination of 250µm bare fiber. 12 standard colors in Hytrel® as well as clear PVC are available.

**FEATURES**

- Accepts either bare fiber or tight buffer
- Provides durable protection when breaking out cables
- Enhanced inner tube protects against crushing and kinking
- Designed for all connector types
- 12 standard colors
- Also available with pull string for 2mm and 3mm furcation tubing

**APPLICATIONS**

- Building up or breaking out of cables for termination
- Protection of bare fiber or tight buffer
- Color coded for easy identification

ALSO AVAILABLE UPON REQUEST
• Duplex Tubing
• Ribbon Tubing
• LSZH Tubing
• 1.6mm Tubing



**SIMPLEX FURCATION TUBING**

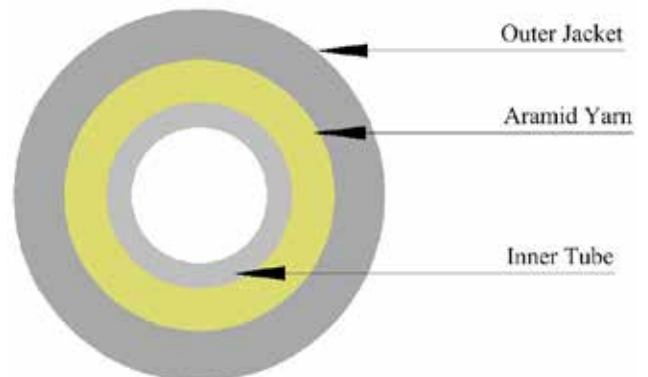
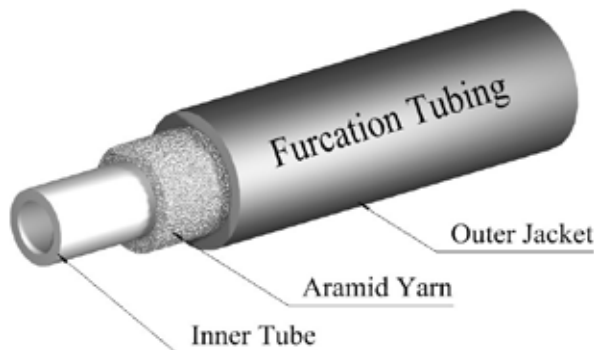
Part Number	Description
F00FR2NU"X"-PLM	2mm - accepts 900µm tight buffer
F00FR2NU"X"900-PLM	2mm - accepts bare fiber
F00FR3NU"X"-PS-PLM	3mm - accepts 900µm tight buffer
F00FR3NU"X"900-PLM	3mm - accepts bare fiber
F00FR38NU"X"- PLM	3.8mm - accepts (2) 900µm tight buffers

Part Number	Description
F00FR900H "X"	900µm - accepts bare fiber

**DUPLEX FURCATION TUBING**

Part Number	Description
F00FDX2NU"X"-PLM	2mm - accepts 900µm tight buffer
F00FDX2NU"X"900-PLM	2mm - accepts bare fiber
F00FDX3NU"X"-PS-PLM	3mm - accepts 900µm tight buffer
F00FDX3NU"X"900-PLM	3mm - accepts bare fiber

When ordering, replace X with B=blue, O=orange, G=green, BR=brown, S=slate, W=white, R=red, BL=black, Y=yellow, P=purple, PK=pink, A=aqua

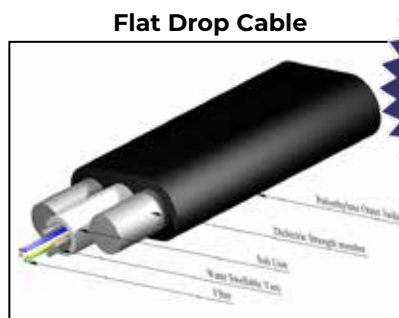




# FLAT DROP CABLE

TLC is happy to offer flat drop outside plant cable for all your Fiber To The Home needs. Manufactured with dry block technology. TLC offers 1 through 12 fiber counts.

The Flat Drop Cable is comprised of bare, colored fiber with water blocking aramid inside a dry 2.5mm buffer tube, The UV resistant polyethylene outer jacket encases the buffer tube along with 2 dielectric FRP strength members. All component materials meet the EU and RoHS Directive standards.



Available in all fiber types

Also available in gel filled & toneable constructions

## SINGLEMODE OS2 (ITU-T G.657.A1)

Part Number	Fiber Count	Nominal Diameter mm	Weight lbs/km	Bend Radius
S09FD01CZEBL	1	8.0 / 4.5	28	16.0 cm
S09FD02CZEBL	2	8.0 / 4.5	28	16.0 cm
S09FD04CZEBL	4	8.0 / 4.5	28	16.0 cm
S09FD06CZEBL	6	8.0 / 4.5	28	16.0 cm
S09FD12CZEBL	12	8.0 / 4.5	28	16.0 cm

### FEATURES

- Small, compact design allows for easy Fiber to the Home installations
- Flat Drop cable are all dielectric thus no need for bonding or grounding
- Self/supporting, aerial and direct burial applications
- Loose tube construction allows for compatibility with all standard connector types

# BREAK OUT KITS

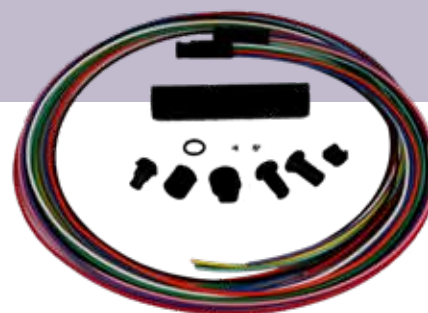
The TLC 2mm and 3mm Break Out Kits are used for the quick and simple termination of 900µm tight buffer distribution cables. TIA/EIA color coded furcation tubing allows for the easy identification of the tight buffered fibers and the new and improved inner tubes provide excellent protection against kinking when terminating.

### FEATURES

- Color Coded tubing for easy identification (also available in numbered, same color tubes)
- Saves time and labor costs in the terminating process
- Accepts 900µm tight buffer
- Compatible with most connector styles
- Available with 2mm and 3mm tubing

### APPLICATIONS

- The “build up” or “break out” of 900µm distribution cables for terminating
- General indoor use where extra protection is needed
- Computer rooms



Part Number	Description
BOK0640	6 Fiber Break Out Kit 3mm Tubes 40 Inch Leads
BOK064020	6 Fiber Break Out Kit 2 mm Tubes 40 Inch Leads
BOK1240	12 Fiber Break Out Kit 3mm Tubes 40 Inch Leads
BOK124020	12 Fiber Break Out Kit 2mm Tubes 40 Inch Leads

# FAN OUT KITS

TLC Fan Out Kits are designed for the quick and simple termination of loose tube (bare fiber) products. The three unique clips (included) accept different tube sizes including ribbon, 2mm and 3mm. 12 standard colors of the 900µm Hytrel® tubes allow for easy identification of fibers.

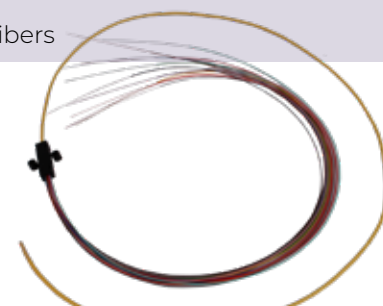
### FEATURES

- Color coded tubing for easy identification
- Saves time and labor costs in the terminating process
- Clips included accept ribbon, 2mm and 3mm cables
- Compatible with all connector styles

### APPLICATIONS

- The “build up” or “break out” of bare fiber tubes for termination
- Quick and easy termination
- Durable protection for bare fibers

Part Number	Description
FOK0425	4 Fiber Fan Out Kit with 25 Inch Leads
FOK0625	6 Fiber Fan Out Kit with 25 Inch Leads
FOK1225	12 Fiber Fan Out Kit with 25 Inch Leads
FOK1236	12 Fiber Fan Out Kit with 36 Inch Leads



Individual Tight Buffered fibers are available and are preferred in production environments because of their ease of stripping. 900µm, 800µm and 650µm buffer sizes match existing tooling and fit the vast array of today's connectors. 12 standard colors are available in all sizes and most fiber types.

**FEATURES**

- Ease and consistency of stripping
- 3 sizes (900µm, 800µm and 650µm) available
- Available in 12 standard colors
- Compatible with existing tooling and fits vast array of connectors

**APPLICATIONS**

- Data centers
- Testing environments
- Launch (pulse) boxes
- Patch cords

**ALSO AVAILABLE UPON REQUEST**

- Optical fibers compliant with ITU-T G.657.A/B standards
- OM5

For 800µm and 650µm Tight Buffer products, a minimum order quantity applies.

**900µm Tight Buffer**

<b>SINGLEMODE OS2</b>	Jacket Type	Diameter mm	Weight lbs/km
<b>S09TB01CZNU "X"</b>	PVC	.900	2
<b>62/125 MULTIMODE OM1</b>			
<b>M62TB01C3NU "X"</b>	PVC	.900	2
<b>50/125 MULTIMODE CLEARCURVE® OM2</b>			
<b>M50TB01C2NU "X"</b>	PVC	.900	2
<b>50/125 MULTIMODE CLEARCURVE® OM3</b>			
<b>M50TB01CGNU "X"</b>	PVC	.900	2
<b>50/125 MULTIMODE CLEARCURVE® OM4</b>			
<b>M50TB01C4NU "X"</b>	PVC	.900	2

When ordering, replace X with B=blue, O=orange, G=green, BR=brown, S=slate, W=white, R=red, BL=black, Y=yellow, P=purple, PK=pink, A=aqua



## SPECIALTY FIBER, CUSTOM AND DESIGN SERVICES

**SPECIALTY FIBER** – TLC offers a vast array of cables that contain specialty fibers. From specialty singlemode to large core multimode to plastic fiber, TLC has the ability to produce the exact cable to fit your needs.

### SOME COMMON SPECIALTY FIBER:

- Plastic Fiber
- Corning® Specialty Fiber
- Large Core Multimode Fiber (200/230µm, 100/140µm)
- Customer Supplied Fiber

**CUSTOM PRODUCTS** – Knowledge and experience in the manufacturing and extrusion processes allow TLC to be the market leader in the production of custom products. Combining these abilities with short lead times and low minimum quantities will help make your company both unique and competitive in a challenging market.

### CUSTOM SERVICES INCLUDE:

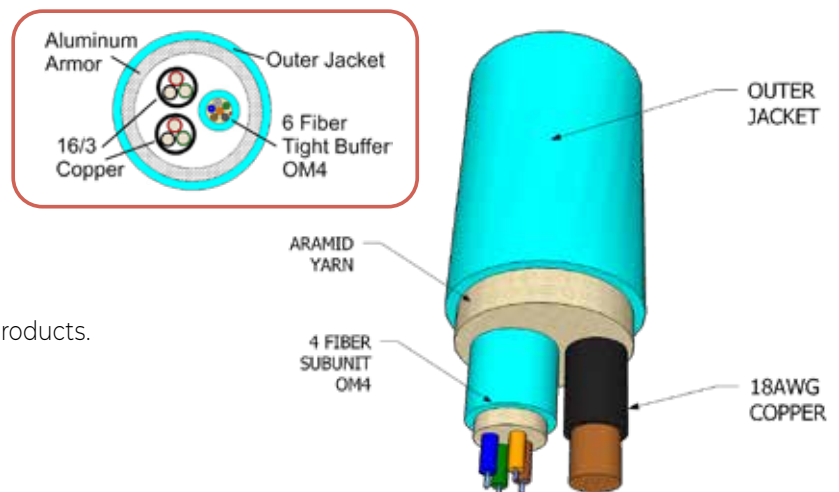
- Custom Colors (at no additional charge)
- Custom Print (at no additional charge)
- Lengths and spooling
- Customer supplied fiber
- Specialty fiber
- Custom fiber counts
- Private Labeling
- Armoring Customer Supplied Cable

**ENGINEERING DESIGN** – Did you know that TLC customers have access to a product design engineering team? Our team welcomes your thoughts and ideas to design and produce the exact cable to meet your ever changing needs.

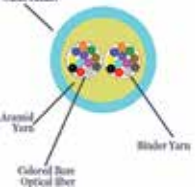
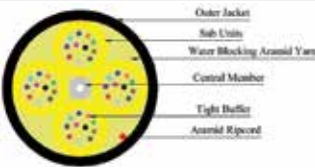
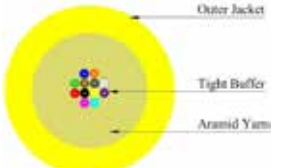
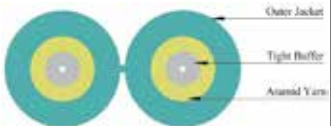
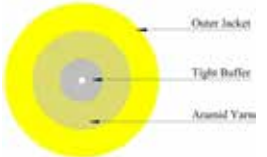


### DESIGN SERVICES INCLUDE:

- Consultation
- Drawings
- Hybrid and composite cables
- Customized spec sheets
- Specialized Constructions

\* Setup fees/MOQs may be required for some products.

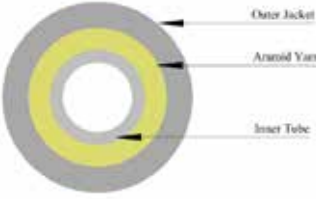
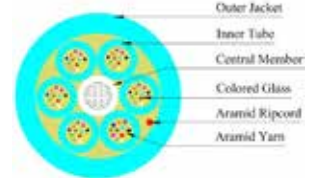
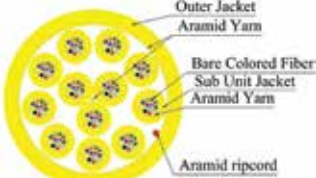

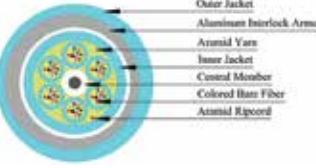



# FIBER OPTICS REFERENCE GUIDE

TLC Fiber Optics Guide				
Cable Type	Fiber Counts	Fiber Type	Application	Description
<b>High-Density Micro Distribution Cable</b> 	24	Corning Optical Fiber® Single Mode OM1 OM2 OM3 OM4 OM5	<ul style="list-style-type: none"> <li>Plenum</li> </ul>	TLC High-Density Micro Distribution Cable is composed of two contrasting color bound bundles of 12 colored glass optical fibers, aramid yarn, and a PVDF outer jacket. Offered in 3mm and 3.8mm constructions, TLC High-Density Cable is available in 12 TIA standard colors or special-order colors. UL Listed OFNP cables are available. Standard surface print denotes construction, NEC rating and fiber type, and includes footage markers. Custom print can also be accommodated.
<b>Indoor / Outdoor Cable</b> 	Up to 144 fiber in riser  Up to 96 fiber in plenum	Corning Optical Fiber® Single Mode OM1 OM2 OM3 OM4 OM5	<ul style="list-style-type: none"> <li>Riser</li> <li>Plenum</li> <li>LSZH</li> </ul>	A UV resistant jacket and available OFNR or OFNP constructions allow TLC indoor/outdoor cables to be used for general indoor application while having the flexibility for outdoor deployment without fire code constraints. Constructions consist of 900µm color coded tight buffers.
<b>Distribution Cable</b> 	Up to 144 fiber in riser  Up to 96 fiber in plenum	Corning Optical Fiber® Single Mode OM1 OM2 OM3 OM4 OM5	<ul style="list-style-type: none"> <li>Riser</li> <li>Plenum</li> <li>LSZH</li> </ul>	TLC Distribution cables are designed for general indoor use. Offered in all fiber types, a thick durable jacket offers excellent strength and protection during installations and restorations. The 900µm color coded tight buffers allow for easy identification and termination. Cables are available in OFNR, OFNP and LSZH constructions.
<b>Duplex Cable</b> 	2	Corning Optical Fiber® Single Mode OM1 OM2 OM3 OM4 OM5	<ul style="list-style-type: none"> <li>Riser</li> <li>Plenum</li> <li>LSZH</li> </ul>	TLC Duplex cables are designed for general patch cord production where consistency and uniformity are vital for fast, efficient terminations. Duplex cables are offered in several outside diameter sizes and meet all tooling and termination requirements.
<b>Simplex Cable</b> 	1	Corning Optical Fiber® Single Mode OM1 OM2 OM3 OM4 OM5	<ul style="list-style-type: none"> <li>Riser</li> <li>Plenum</li> <li>LSZH</li> </ul>	TLC Simplex cables are designed for general patch cord production where consistency and uniformity are vital for fast efficient terminations. Simplex cables are offered in several outside diameter sizes and meet all tooling and termination requirements.
<b>Breakout Cable</b> 	Up to 18 fiber in riser  Up to 12 fiber in plenum	Corning Optical Fiber® Single Mode OM1 OM2 OM3 OM4 OM5	<ul style="list-style-type: none"> <li>Riser</li> <li>Plenum</li> <li>LSZH</li> </ul>	Breakout cable consists of 2mm subunits (other sizes available) with 900µm tight buffers. Combining strength, flexibility and no need for fan-out kits or tubing when terminating, these rugged cables are ideal for indoor and indoor/outdoor applications. TLC offers Breakout cables from 2-18 fiber constructions with OFNR and OFNP ratings.
<b>Flat Ribbon Cable</b> 	2 to 12	Corning Optical Fiber® Single Mode OM1 OM2 OM3 OM4 OM5	<ul style="list-style-type: none"> <li>Riser</li> <li>Plenum</li> <li>LSZH</li> </ul>	TLC's flat ribbon cable is compatible with the current industry tools and termination products (mainly MTP and MPO connectors). In OFNR and OFNP constructions as well as a LSZH jacket, TLC offers fiber counts from 2-12. Unrated bare ribbon fiber also available.

Note: All Specifications Are Subject to Change Without Notice.

## TLC Fiber Optics Guide

Cable Type	Fiber Counts	Fiber Type	Application	Description
<b>Furcation Tubing</b> 	SX and DX		<ul style="list-style-type: none"> <li>• Building up or breaking out of cables for termination</li> <li>• Protection of bare fiber or tight buffer</li> <li>• Color coded for easy identification</li> </ul>	<p>The TLC 1.6mm, 2mm, 3mm, 3.8mm and 4.8mm furcation tubing consist of an inner tube surrounded by aramid yarn and an overall PVC jacket. The new and improved inner tubes offer better bend ability and kink resistance when terminating and operating. Inner tubes are available in specific sizes to accept either bare or buffered fibers.</p> <p>TLC's 900µm furcation tubing is a single tube designed specifically for the protection and termination of 250µm bare fiber. 12 standard colors in Hytre!® as well as clear PVC are available.</p>
<b>Micro-Distribution Cable</b> 		2 to 96		
<b>Micro-Distribution Cable with 2mm Subs</b> 	1 to 288	Corning Optical Fiber®  Single Mode OM1 OM2 OM3 OM4 OM5	<ul style="list-style-type: none"> <li>• Plenum</li> <li>• LSZH</li> </ul>	<p>In comparison to the Micro-distribution cables with 3mm subunits, the TLC Micro-distribution with 2mm subs offers even more space saving constructions. The small subunits design allows for up to a 30% smaller footprint. Available with up to 24 subunits containing 12 color coded bare fibers, TLC now offers 288 fiber products for all data center applications. Micro-distribution with 2mm subunits is offered in OFNP constructions only.</p>
<b>Indoor/Outdoor Dry Loose Tube</b> 	2 to 144	Corning Optical Fiber®  Single Mode OM1 OM2 OM3 OM4 OM5	<ul style="list-style-type: none"> <li>• Riser</li> <li>• Plenum</li> <li>• Duct</li> <li>• LSZH</li> </ul>	<p>TLC indoor/outdoor dry loose tube cable has no gel to complicate the termination process. The dry loose tube technology and UV resistant black jacket allow for general outside applications. OFNR or OFNP rated constructions provide the flexibility to be deployed indoors without code constraints. Color coded inner tubes each containing 2 to 12 colored bare fibers allow for easy identification.</p>
<b>Aluminum Interlocking Armor (ATA)</b> 	Up to 144	Corning Optical Fiber®  Single Mode OM1 OM2 OM3 OM4 OM5	<ul style="list-style-type: none"> <li>• Riser</li> <li>• Plenum</li> <li>• LSZH</li> </ul>	<p>TLC Interlocking Armored Cables (aluminum) are standard cables inside a spirally wrapped interlocking armor for enhanced crush resistance and ruggedness. Available in OFCR and OFCP constructions, interlocking armor can be used for general inside plant and/or indoor/outdoor applications in place of a conduit.</p>
<b>Flat Drop Cable</b> 	Up to 12	Corning Optical Fiber®  Single Mode OM1 OM2 OM3 OM4 OM5	<ul style="list-style-type: none"> <li>• Fiber to the "X"</li> </ul> <p>X = home, apartment, building, business, etc.</p>	<p>TLC is happy to offer flat drop outside plant cable for all your Fiber To The Home needs. Manufactured with dry block technology, TLC offers 2 through 12 fiber counts. The Flat Drop Cable is comprised of bare colored fiber with water blocking aramid inside a dry 2.5mm buffer tube. The UV resistant polyethylene outer jacket encases the buffer tube along with 2 dielectric FRP strength members. All component materials meet the EU and RoHS Directive standards.</p>

Note: All Specifications Are Subject to Change Without Notice.

# PART NUMBERING GUIDE

Family	Core Size	Cable Type	Number of Fibers	Fiber Type	RoHS Compliant	Rating (Riser/ Plenum)	Color	Simplex/ Duplex/ HD OD
Simplex****	S09/M50/M62	SX	##	*	N	R/P	**	****
Duplex****	S09/M50/M62	DX	##	*	N	R/P	**	****
Round Duplex	S09/M50/M62	RX	##	*	N	R/P	**	n/a
Ribbon	S09/M50/M62	RB	##	*	N	R/P	**	n/a
Distribution *****	S09/M50/M62	DI	##	*	N	R/P	**	*****
Indoor/ Outdoor *****	S09/M50/M62	IO	##	*	N	R/P	**	*****
Dry Loose Tube *****	S09/M50/M62	DL	##	*	N	R/P	**	n/a
Micro Distribution***	S09/M50/M62	MD	##	*	N	R/P	**	n/a
High Density Micro Dist.*****	S09/M50/M62	HD	##	*	N	P only	**	*****
Flat Drop	S09/M50/M62	FD	##	*	N	PE (Unrated)	**	n/a

Core Size Code	Core Size	Type of Fiber
S09	9/125	Singlemode
M50	50/125	Multimode
M62	62.5/125	Multimode

Number of Fibers
01 to 288

N = non hazardous substances = RoHS compliant

## \*Fiber Type Code

SMF28 Ultra OS2	ClearCurve® LBL OS2	ClearCurve® ZBL OS2	Infinicor300® OM1	ClearCurve® OM2	ClearCurve® OM3	ClearCurve® OM4	ClearCurve® OM5
CZ	C7	CC	C3	C2	CG	C4	C5

## \*\*Color Code

Blue	Orange	Green	Brown	Slate	White	Red	Black	Yellow	Purple	Pink	Aqua	Magenta	Lime Green
B	O	G	BR	S	W	R	BL	Y	P	PK	A	M	LG

***Micro Distribution	Code for Inner Tubes	Subunit Color
3mm Subunit	2T, 3T, 4T, 6T	**
2mm Subunit	20	**

***** Dry Loose Tube	Code for Inner Tubes	Subunit Color
2.5mm Subunit	25	**

****Simplex/ Duplex	OD Code	****HD Cable	OD Code
3mm	n/a	3mm	n/a
2mm	20	3.8mm	38
1.8mm	18	*****DIST/IO Cable OD Code	
1.6mm	16	4.8mm	48
1.2mm	12	5.8mm	58
		7.8mm	78

## PART NUMBER EXAMPLES

<b>M50</b>	<b>MD</b>	<b>48</b>	<b>C4</b>	<b>N</b>	<b>P</b>	<b>A</b>	<b>4T</b>	<b>-A</b>
MM/50/125	Micro Distribution	48 Fiber	ClearCurve OM4	RoHS Compliant	Plenum	Aqua	Inner Tube Code (4 Tubes)	Aqua Subunits

<b>S09</b>	<b>DX</b>	<b>02</b>	<b>CZ</b>	<b>N</b>	<b>R</b>	<b>Y</b>	<b>20</b>
SM/9/125	Duplex	2 Fiber	SMF28 Ultra	RoHS Compliant	Riser	Yellow	2mm Cable OD

**Aramid Yarn** – yellow fibers that provide cable tensile strength, support, and additional protection of the optical fiber bundles. Kevlar® is a particular brand of aramid yarn.

**Armor-Corrugated** – It's a continuously welded longitudinally applied steel tape used inside outdoor optical cables. It provides high crush resistance and prevents water penetration which makes it a suitable choice for outside plant application.

**Armor-Interlock** – It's a spirally wrapped aluminum or steel armor used for indoor/ outdoor cable application. It provides flexibility and high crush resistance which makes it suitable for areas requiring extra protection for optical cables.

**Attenuation** - A measure of the decrease in energy transmission (loss of light) expressed in dB/km. In optical wave guides attenuation is primarily due to absorption losses and scattering losses.

**Backbone Cable** – The portion of a telecommunications network that provides connections between closets, equipment rooms, and entrance facilities.

**Bend Radius** – Maximum bend allowed before physical damage is incurred. Generally expressed for two conditions, loaded (under tensile load) or unloaded.

**Broadband** – Denotes transmission facilities capable of handling a wide range of frequencies simultaneously, thus permitting multiple channels in data systems.

**Buffer** – Material used to protect an optical fiber or cable from physical damage and providing mechanical isolation or protection. Fabrication techniques include both tight jacket or loose tube buffering, as well as multiple buffer layers.

**Buffer Tube** – A protective tubing used to protect fiber. Commonly used as a subunit in multi-fiber cable.

**Central Member** – The center component of a cable used to provide strength. Commonly referred to as "Central Strength Member."

**Cladding** - A low refractive index, glass or plastic that surrounds the core of a fiber. Optical cladding promotes total internal reflection for the propagation of light in a fiber.

**Composite Cable** – A cable containing both fiber and copper conductors.

**Core** - The light conducting portion of a fiber, defined by its high refraction index. The core is the center of a fiber, surrounded by concentric cladding of lower refractive index.

**Duplex Cable (fiber optics)** - A cable that contains two optical fibers in a single cable structure. Light is not coupled between the two fibers; typically one is used to transmit signals in one direction and the other used to transmit in the opposite direction.

**Ethernet** – A network protocol standard for a 10 Mbit/s local area network. Also, "Fast Ethernet" (100 Mbit/s) and "Gigabit Ethernet" (1000 Mbit/s)

**Fan-Out** – A multi-fiber cable constructed in a tight buffered tube design. At a termination point, cable fibers must be separated from the cable to their separate connection positions.

**Ferrule** - A component of fiber optic connectors that holds a fiber in place and aids in its alignment. It is the protruding portion of the connector, made of Ceramic, Stainless Steel, or Polymer, and is polished during the connection process to form a smooth finish.

**FFDI** – A standard for a 100 Mbit/s optical fiber local area network.

**Fiber Buffer** - Material used to protect an optical fiber or cable from physical damage, providing mechanical isolation or protection. Fabrication techniques include both tight jacket or loose tube buffering, as well as multiple buffer layers.

**FTTx** – This term is used to denote the point at which optical fiber is extended to the end user. The variable "x" can represent a curb, business, home, node or other termination point, after which fiber may transition to copper cable.

**Furcation Tubing** – A protective tubing used to protect exposed fiber. Commonly used in terminating multi-fiber cable or "fan-out" situations. Also referred to as buffer tubing.

**Fusion Splicer** - A high precision piece of equipment that allows the user to "melt" or fuse the ends of two optical fibers together to create one continuous fiber. There is typically very low loss at this junction. Alignment of fibers can be by manual or automatic manipulation. The fusing takes place by electrical discharge between two electrodes.

**Graded Index Fiber** - An optical fiber in which the refractive index changes gradually between the core and cladding, in a way designed to refract light so it stays in the fiber core. Such fibers have lower dispersion and hence broader bandwidth than step-index fibers.

**High Index (HI) Fiber** – Designed with a higher core index and a more precise core/clad geometry to reduce the fiber's bend attenuation. HI fibers are used within optical networking components, and play an integral role inside many high performance optical communications devices including optical amplifiers, transmission lasers, and dispersion compensation modules.

**Hybrid Cable** – A fiber optic cable containing two or more different types of fiber, such as 62.5µm multimode and singlemode.

**Kevlar** - DuPont brand of aramid yarn used to provide strain relief in cable assemblies.

**Laser** - An acronym for Light Amplification by the Stimulated Emission of Radiation, applied to a wide range of devices which produce light by that principle. Compared with other light sources, laser light covers a narrow range of wavelengths, tends to be coherent, and is emitted in a directional beam.

**LED (Light-Emitting Diode)** - A semiconductor device in which light is produced when current carriers combine at a p-n junction. The emission is spontaneous and there are no feedback mirrors, unlike diode lasers. Output is lower in power than from diode lasers, reflecting the use of lower operating currents. Generally LEDs are less expensive than diode lasers, and can operate at shorter wavelengths without the rapid degradation that occurs with visible-wavelength diodes.

**Link Length** – Referring to the distance over which an optic fiber will carry a coherent signal relative to the rate of transmission.

**Loose Buffer Cable** - Loose buffered designs consist of a loose tube surrounding a coated fiber. It also includes an aramid braid as the strength member for improved flexibility.

**Microbending Loss** - In an optical fiber, loss caused by sharp curvatures involving local axial displacements of a few micrometers and spatial wavelengths of a few millimeters. Such bends may result from fiber coating, cabling, packaging, installation, etc.

**Mode Conditioning Patchcord** - A duplex multimode cord that has a small length of singlemode fiber at the start of the transmission leg. The basic principle behind the cord is that you launch your laser into the small section of singlemode fiber. The other end of the singlemode fiber is coupled to the multimode section of the cable with the core offset from the center of the multimode fiber. The laser light thus misses the "dip" and this new launch condition more closely mimics a standard LED launch. The bonus is that you still retain the speed advantages of using a laser.

**Multimode** - An optical waveguide with a much larger core (50µm +) than the singlemode waveguide core (2 to 9µm) and which permits approximately 1000 modes to propagate through the core compared to only one mode through a singlemode fiber.

**Nonzero Dispersion-Shifted Fiber** – A fiber whose properties are dispersion shifted to a region other than the point of zero dispersion. Corning's LEAF fiber is an example of this fiber.

**Numerical Aperture (NA)** - The numerical aperture of an optical fiber defines a characteristic of the fiber in terms of its acceptance of light. The "degree of openness," "light gathering ability" and "acceptance cone" are all terms describing this characteristic.

**Optical Fiber Nonconductive Riser (OFNR)** - Cable that has been subjected to and passed the UL 1666 flame propagation test in accordance with Article 770 of the National Electrical Code.

**Optical Fiber Nonconductive Plenum (OFNP)** - Cable that has been subjected to and passed the NFPA 262 flame propagation and smoke-density test in accordance with Article 770 of the National Electrical Code.

**Optical Return Loss (ORL)** - A reflection that travels down the fiber back to the source. In high speed systems this is undesirable because it can interfere with the transmission. Also referred to as "back reflection".

**Optical Time Domain Reflectometer (OTDR)** – A method for characterizing a fiber via an optical pulse transmitted through the fiber. The resulting backscatter and reflections are measured as a function of time. The OTDR is useful in measuring attenuation over distance, identification of defects and other losses.

**Patchcord** - A length of cable with connectors at both ends. Also known as jumpers.

**Pigtail** – A short length of optical fiber with a connector on one end and no connector on the other end.

**Plastic Fibers** – Optical fibers in which both core and cladding are made of plastic material. Typically their transmission is much poorer than that of glass fibers, and their lowest losses are in the visible region.

**Plenum** – An air-handling space such as that found above drop-ceiling tiles or in raised floors.

**Polarization-Maintaining Fiber** – A singlemode optical fiber that maintains the polarization of the light that entered it, normally by including some birefringence within the fiber itself. Normal singlemode fibers, and all other types, allow polarization to be scrambled in light transmitted through them.

**Polyethylene (PE)** – A type of thermo plastic material used for outside plant cable jackets.

**Polyvinyl-chloride (PVC)** – A type of thermo plastic material used for cable jacketing. Typically used in flame-retardant cables.

**Reflection** – The abrupt change in direction of a light beam at an interface between two dissimilar media so that the light beam returns into the media from which it originated.

**Return Loss** – Expressed in negative value (–dB), this refers to the amount of back reflection. The lower the dB value, the better the connector and polish finish on the connector ferrule.

**Riser** – Pathways for indoor cables that pass between floors. It is normally a vertical shaft or space.

**Simplex Cable** – A single cable structure with a single fiber.

**Singlemode** – One type of low-loss optical waveguide with a very small Core (2-9 microns). It requires a laser source for input signals because of the very small entrance aperture. The smallness of the core radius approaches the wavelength of the source. Consequently, only a singlemode is propagated.

**Step-Index** – An optical fiber, either multimode or singlemode, in which the core refractive index is uniform throughout so that a sharp step in refractive index occurs at the core-to-cladding interface. It usually refers to a multimode fiber. Such fibers have a large numerical aperture, and are simple to connect, but have lower bandwidth than other types of optical fibers.

**Tight Buffered Cable** – A protective coating extruded tightly over fiber for mechanical and environmental protection. The coating material is typically nylon or PVC. This buffering offers excellent physical and flexing properties, but higher micro-bending sensitivity.

**Zero-Dispersion Wavelength** – Wavelength at which the chromatic dispersion of an optical fiber is zero. Occurs when waveguide dispersion cancels out material dispersion.



# CONNECTING THE NEXT GENERATION

All TLC products are offered with a focus on customer service. Our inventory, fast turnaround, customization capabilities and four regional warehouses separate us from the others in our industry.



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