

## NTZLxxAA Fiber Optic - Tight Buffer - LSZH Jacket - Indoor IEC60332-1

 	<p>For more information please call 1-800-Belden1</p> <p><u>See Put-ups and Colors</u></p> <p>Related Documents: No.10 for Fiber Optic Cables .pdf</p>
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### Cable Characteristics:

#### DESCRIPTION:

2 to 24 optical fibers, 900µm TPE tight buffer, stranded together with aramid yarn reinforcing, LSZH jacket for indoor applications – IEC 60332-1 rated.

#### SUITABLE APPLICATIONS:

Suitable Applications	High degree of flexibility suitable for backbone, horizontal, inner- and inter- building installations; Excellent LSZH flame retardant performance for indoor application.
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#### PHYSICAL CHARACTERISTICS:

Fiber Type	125/900 Micron
Number of Fibers	2 to 24
Tight Buffer Color Code Chart:	

Number	Color
1	Blue
2	Orange
3	Green
4	Brown
5	Grey
6	White
7	Red
8	Black
9	Yellow
10	Violet
11	Pink
12	Aqua

The second set of 12 fibers with black rings is separated from the first set of 12.

#### STRENGTH MEMBER:

Strength Member Material	Aramid yarn
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#### OUTER JACKET:

Outer Jacket Material	LSZH – Low Smoke Zero Halogen
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#### OVERALL CABLE:

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### Overall Nominal Diameter & Bulk Cable Weight:

# Fibers	Overall Nominal Diameter (mm)	Bulk Cable Weight (kg/km)
2	3.2	11.3
4	4.8	21.6
6	5.1	25.5
8	5.6	31.4
10	5.8	35.0
12	6.2	40.3
14	8.8	43.5
16	8.8	46.7
18	8.8	49.9
20	8.8	53.9
22	8.8	56.5
24	8.8	60.0

### MECHANICAL CHARACTERISTICS:

Operating Temperature Range	- 20°C To + 60°C
Storage Temperature Range	- 20°C To + 60°C
Max. Load for Installation	660 N, Passes IEC794-1
Max. Load for Long Term	200 N, Passes IEC794-1
Max. Crush Resistance for Installation	1000 N/100mm, Passes IEC794-1
Max. Crush Resistance for Long Term	300 N/100mm, Passes IEC794-1
Min. Bend Radius for Installation	20 × Cable OD
Min. Bend Radius for Long Term	10 × Cable OD

### APPLICABLE SPECIFICATION AGENCY COMPLIANCE:

#### APPLICABLE STANDARDS:

IEC Specification	60794-1
EU RoHS Compliant (Y/N)	Y
EU RoHS Compliance Date	Aug 2007

#### FLAME TEST:

IEC Flame Test	60332-1
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#### SUITABILITY:

Suitability – Indoor (Y/N)	Y
Suitability - Outdoor (Y/N)	N
Suitability - Aerial (Y/N)	N
Suitability – Duct (Y/N)	Y

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Suitability – Direct Burial (Y/N)	N
Sunlight Resistance (Y/N)	N

### Optical Characteristics:

SINGLE MODE FIBERS	G652.D (OS2)
Belden Fiber Code	L12
Typical Mode Field Diameter @ 1310nm	9.2 ±0.4 μm
Typical Mode Field Diameter @ 1550nm	10.4 ±0.5 μm
Cladding Diameter	125 ±0.7 μm
Clad Non-Circularity	≤ 0.7 %
Core-Clad Concentricity Error	≤ 0.5 μm
Primary Coating Material	Acrylate
Primary Coating Diameter	245 ±5 μm
Tight Buffer Material	TPE
Tight Buffer Diameter	900 ±50 μm
Max. Attenuation @ 1310nm	0.40 dB/km
Max. Attenuation @ 1550nm	0.30 dB/km
Point Loss @ 1310nm & 1550nm	0.05 dB
Zero Dispersion Wavelength	1302 – 1322 nm
Max. Slope @ Zero Dispersion Wavelength	0.090 ps/(nm <sup>2</sup> km)
Max. PMD @ Link Design Value	0.1 ps/√ km
Cable Cutoff Wavelength	≤ 1260 nm
Refractive Index @1310nm	1.466
Refractive Index @1550nm	1.467

MULTI-MODE FIBERS	62.5μm OM1	50μm OM2	50μm OM3	50μm OM4
Belden Fiber Code	L62	L50	L53	L54
Typical Core Diameter	62.5 ±2.5 μm	50.0 ±2.5 μm	50.0 ±2.5 μm	50.0 ±2.5 μm
Cladding Diameter	125 ±1.0 μm	125 ±1.0 μm	125 ±1.0 μm	125 ±1.0 μm
Clad Non-Circularity	≤ 1 %	≤ 1 %	≤ 1 %	≤ 1 %
Core-Clad Concentricity Error	≤ 1.5 μm	≤ 1.5 μm	≤ 1.0 μm	≤ 1.0 μm
Primary Coating Material	Acrylate	Acrylate	Acrylate	Acrylate
Primary Coating Diameter	245 ±7 μm	245 ±7 μm	245 ±7 μm	245 ±7 μm

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Tight Buffer Material	TPE	TPE	TPE	TPE
Tight Buffer Diameter	900 ± 50 µm	900 ± 50 µm	900 ± 50 µm	900 ± 50 µm
Max. Attenuation @ 850nm	3.5 dB/km	3.5 dB/km	3.5 dB/km	3.5 dB/km
Max. Attenuation @ 1300nm	1.5 dB/km	1.5 dB/km	1.5 dB/km	1.5 dB/km
Min. Overfilled Bandwidth @ 850nm	200 MHz.km	500 MHz.km	1500 MHz.km	3500 MHz.km
Min. Overfilled Bandwidth @ 1300nm	600 MHz.km	500 MHz.km	500 MHz.km	500 MHz.km
Point Loss @ 850nm & 1300nm	0.10 dB	0.10 dB	0.10 dB	0.10 dB
Numerical Aperture	0.275 ± 0.015	0.200 ± 0.015	0.200 ± 0.015	0.200 ± 0.015
Refractive Index @ 850nm	1.496	1.482	1.482	1.482
Refractive Index @ 1300nm	1.491	1.477	1.477	1.477
Min. G-Ethernet Transmission Distance@850nm	300 m	550 m	1000 m	1000 m
Min.G-Ethernet TransmissionDistance@1300nm	550 m	550 m	600 m	600 m
Min.10G-Ethernet TransmissionDistance@850nm	—	—	300 m	550 m

### PUT-UPS AND COLORS:

Item	# Fibers	Fiber Type	Cable Description	Put-up* (metre)	Jacket Color
NTZL12AA002YEAA	2	G652.D	TIGHT BUFFER INDOOR LSZH OFC	2000	YELLOW
NTZL12AA004YEAA	4	G652.D	TIGHT BUFFER INDOOR LSZH OFC	2000	YELLOW
NTZL12AA006YEAA	6	G652.D	TIGHT BUFFER INDOOR LSZH OFC	2000	YELLOW
NTZL12AA008YEAA	8	G652.D	TIGHT BUFFER INDOOR LSZH OFC	2000	YELLOW
NTZL12AA010YEAA	10	G652.D	TIGHT BUFFER INDOOR LSZH OFC	2000	YELLOW
NTZL12AA012YEAA	12	G652.D	TIGHT BUFFER INDOOR LSZH OFC	2000	YELLOW
NTZL12AA014YEAA	14	G652.D	TIGHT BUFFER INDOOR LSZH OFC	2000	YELLOW
NTZL12AA016YEAA	16	G652.D	TIGHT BUFFER INDOOR LSZH OFC	2000	YELLOW
NTZL12AA018YEAA	18	G652.D	TIGHT BUFFER INDOOR LSZH OFC	2000	YELLOW
NTZL12AA020YEAA	20	G652.D	TIGHT BUFFER INDOOR LSZH OFC	2000	YELLOW
NTZL12AA022YEAA	22	G652.D	TIGHT BUFFER INDOOR LSZH OFC	2000	YELLOW
NTZL12AA024YEAA	24	G652.D	TIGHT BUFFER INDOOR LSZH OFC	2000	YELLOW
NTZL62AA002OGAA	2	62.5µm OM1	TIGHT BUFFER INDOOR LSZH OFC	2000	ORANGE
NTZL62AA004OGAA	4	62.5µm OM1	TIGHT BUFFER INDOOR LSZH OFC	2000	ORANGE
NTZL62AA006OGAA	6	62.5µm OM1	TIGHT BUFFER INDOOR LSZH OFC	2000	ORANGE
NTZL62AA008OGAA	8	62.5µm OM1	TIGHT BUFFER INDOOR LSZH OFC	2000	ORANGE
NTZL62AA010OGAA	10	62.5µm OM1	TIGHT BUFFER INDOOR LSZH OFC	2000	ORANGE
NTZL62AA012OGAA	12	62.5µm OM1	TIGHT BUFFER INDOOR LSZH OFC	2000	ORANGE
NTZL62AA014OGAA	14	62.5µm OM1	TIGHT BUFFER INDOOR LSZH OFC	2000	ORANGE

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NTZL62AA016OGAA	16	62.5µm OM1	TIGHT BUFFER INDOOR LSZH OFC	2000	ORANGE
NTZL62AA018OGAA	18	62.5µm OM1	TIGHT BUFFER INDOOR LSZH OFC	2000	ORANGE
NTZL62AA020OGAA	20	62.5µm OM1	TIGHT BUFFER INDOOR LSZH OFC	2000	ORANGE
NTZL62AA022OGAA	22	62.5µm OM1	TIGHT BUFFER INDOOR LSZH OFC	2000	ORANGE
NTZL62AA024OGAA	24	62.5µm OM1	TIGHT BUFFER INDOOR LSZH OFC	2000	ORANGE
NTZL50AA002OGAA	2	50µm OM2	TIGHT BUFFER INDOOR LSZH OFC	2000	ORANGE
NTZL50AA004OGAA	4	50µm OM2	TIGHT BUFFER INDOOR LSZH OFC	2000	ORANGE
NTZL50AA006OGAA	6	50µm OM2	TIGHT BUFFER INDOOR LSZH OFC	2000	ORANGE
NTZL50AA008OGAA	8	50µm OM2	TIGHT BUFFER INDOOR LSZH OFC	2000	ORANGE
NTZL50AA010OGAA	10	50µm OM2	TIGHT BUFFER INDOOR LSZH OFC	2000	ORANGE
NTZL50AA012OGAA	12	50µm OM2	TIGHT BUFFER INDOOR LSZH OFC	2000	ORANGE
NTZL50AA014OGAA	14	50µm OM2	TIGHT BUFFER INDOOR LSZH OFC	2000	ORANGE
NTZL50AA016OGAA	16	50µm OM2	TIGHT BUFFER INDOOR LSZH OFC	2000	ORANGE
NTZL50AA018OGAA	18	50µm OM2	TIGHT BUFFER INDOOR LSZH OFC	2000	ORANGE
NTZL50AA020OGAA	20	50µm OM2	TIGHT BUFFER INDOOR LSZH OFC	2000	ORANGE
NTZL50AA022OGAA	22	50µm OM2	TIGHT BUFFER INDOOR LSZH OFC	2000	ORANGE
NTZL50AA024OGAA	24	50µm OM2	TIGHT BUFFER INDOOR LSZH OFC	2000	ORANGE
NTZL53AA002AQAA	2	50µm OM3	TIGHT BUFFER INDOOR LSZH OFC	2000	AQUA
NTZL53AA004AQAA	4	50µm OM3	TIGHT BUFFER INDOOR LSZH OFC	2000	AQUA
NTZL53AA006AQAA	6	50µm OM3	TIGHT BUFFER INDOOR LSZH OFC	2000	AQUA
NTZL53AA008AQAA	8	50µm OM3	TIGHT BUFFER INDOOR LSZH OFC	2000	AQUA
NTZL53AA010AQAA	10	50µm OM3	TIGHT BUFFER INDOOR LSZH OFC	2000	AQUA
NTZL53AA012AQAA	12	50µm OM3	TIGHT BUFFER INDOOR LSZH OFC	2000	AQUA
NTZL53AA014AQAA	14	50µm OM3	TIGHT BUFFER INDOOR LSZH OFC	2000	AQUA
NTZL53AA016AQAA	16	50µm OM3	TIGHT BUFFER INDOOR LSZH OFC	2000	AQUA
NTZL53AA018AQAA	18	50µm OM3	TIGHT BUFFER INDOOR LSZH OFC	2000	AQUA
NTZL53AA020AQAA	20	50µm OM3	TIGHT BUFFER INDOOR LSZH OFC	2000	AQUA
NTZL53AA022AQAA	22	50µm OM3	TIGHT BUFFER INDOOR LSZH OFC	2000	AQUA
NTZL53AA024AQAA	24	50µm OM3	TIGHT BUFFER INDOOR LSZH OFC	2000	AQUA
NTZL54AA002AQAA	2	50µm OM4	TIGHT BUFFER INDOOR LSZH OFC	2000	AQUA
NTZL54AA004AQAA	4	50µm OM4	TIGHT BUFFER INDOOR LSZH OFC	2000	AQUA
NTZL54AA006AQAA	6	50µm OM4	TIGHT BUFFER INDOOR LSZH OFC	2000	AQUA
NTZL54AA008AQAA	8	50µm OM4	TIGHT BUFFER INDOOR LSZH OFC	2000	AQUA
NTZL54AA010AQAA	10	50µm OM4	TIGHT BUFFER INDOOR LSZH OFC	2000	AQUA
NTZL54AA012AQAA	12	50µm OM4	TIGHT BUFFER INDOOR LSZH OFC	2000	AQUA
NTZL54AA014AQAA	14	50µm OM4	TIGHT BUFFER INDOOR LSZH OFC	2000	AQUA
NTZL54AA016AQAA	16	50µm OM4	TIGHT BUFFER INDOOR LSZH OFC	2000	AQUA
NTZL54AA018AQAA	18	50µm OM4	TIGHT BUFFER INDOOR LSZH OFC	2000	AQUA
NTZL54AA020AQAA	20	50µm OM4	TIGHT BUFFER INDOOR LSZH OFC	2000	AQUA

**NTZLxxAA      Fiber Optic - Tight Buffer - LSZH Jacket - Indoor IEC60332-1**

NTZL54AA022AQAA	22	50µm OM4	TIGHT BUFFER INDOOR LSZH OFC	2000	AQUA
NTZL54AA024AQAA	24	50µm OM4	TIGHT BUFFER INDOOR LSZH OFC	2000	AQUA

\* Other put-ups available upon request.

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