ZORA Outdoor Single-mode Fiber Cable (6-144 cores)

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ZORA's Robust outdoor single-mode fiber cable (6-144 cores) for long-distance, high-speed transmission. Perfect for telecom, broadband, and harsh environments

ZORA outdoor non-metal loose tube fiber optic cables are designed with a high number of fiber cores to provide the versatility and flexibility required to support demanding installations.

With fiber cores up to 288, our non-metallic loose tube fibers comply with EIA/TIA, REA/RUS PE-90 and GR-20 standards.

Product Features

- 06~144 cores
- Loose casing design
- The outer material is PE
- Good mechanical and temperature properties
- High strength loose tube sleeve, hydrolysis resistant

- The tube is filled with special oil paste to provide critical protection for the optical fiber
- Pressure resistance and flexibility
- PSP enhances moisture resistance
- Small diameter, light weight and easy to install

Applications

- Impracticable
- Outdoor application
- As the backbone network of LAN, MAN, WAN
- 10Gbps 40/100Gbps Ethernet network
- Storage Local Area Network (SAN), data center

Conform to standards

- Bellcore GR-20-CORE
- ISO/IEC11801
- ANSI/TIA 568-2.D
- CENELEC EN 50173
- IEC60794-1

Ordering Informatio

Product name	Packing specification	Packing specification
ZRC51SM-6	ZORA 6-core indoor OS2 fiber optic cable	2 km/roll
ZRC51SM-8	ZORA 8-core indoor OS2 fiber optic cable	2 km/roll
ZRC51SM-12	ZORA 12-core indoor OS2 fiber optic cable	2 km/roll
ZRC51SM-24	ZORA 24-core indoor OS2 fiber optic cable	2 km/roll
ZRC51SM-48	ZORA 48-core indoor OS2 fiber optic cable	2 km/roll
ZRC51SM-96	ZORA 48-core indoor OS2 fiber optic cable	2 km/roll

Technical specification

Structure	
Outdoor coat	
Coat material	HDPE
The average coat thickness	Averages 1.8 mm
The internal strength consists	FRP
Cable reinforcement material (metal armor)	NO
Fiber size	50/125μm

Buffer protective layer diameter	
Main buffer layer diameter	250μm ± 5μm
Loose casing material	PBT
Compressive strength (IEC794-1)	
Installation/transport (100 mm)	1000 N / 300 N
Minimum bending radius (IEC794-1)	
Install/transport	20 x diameter / 10 x diameter
Operating Temperature	
Installation / Transportation	-40℃ ~ +70℃

Technical Data - Transmission						
Fiber type	**Attenuation**				**Bandwidth**	**Bandwidth**
Conditions	---		---		**850 nm**	**1300 nm**
	1310 nm	**1550 nm**	**850 nm**	**1300 nm**		
Units	**dB/km**	**dB/km**	**dB/km**	**dB/km**	**MHz/km**	**MHz/km**

G652D	≤0.36	≤0.22	---	---	---	---
G655	≤0.40	≤0.23	---	---	---	---
OM1	---	---	≤3.5	≤1.2	≥200	≥500
OM2	---	---	≤3.3	≤1.2	≥500	≥500
OM3	---	---	≤3.3	≤1.2	≥1500	≥500
OM4	---	---	≤3.3	≤1.2	≥3500	≥500

Technical Data - Machinery

Specification	6-42 fibre optics (6 fibre optics per tube)	48-84 fibre optics (12 fibre optics per tube)	96 fibres (12 fibres per tube)
Number of loose sleeves	1-7 Loose Tubing	4-7 Loose Tubing	8 Loose Tubing
Cable diameter	Approx. 10.1 mm	Approx. 11.0 mm	Approx. 11.9 mm
Cable weight	Approximately 87 (kg/km)	Approx. 103 (kg/km)	Approx. 121 (kg/km)
Strength Component	2.25mm	2.8mm	3.7mm

Diameter			
Maximum Tensile Tension Installation	1000N	1500N	3000N
Maximum Tensile Tension Operation	400N	600N	1000N

ZORA Outdoor Single-mode Fiber Cable (6-144 cores) FAQ

What is the primary use of the OM4-550 cable?

It’ s designed for high-speed indoor networking, supporting 10 Gigabit Ethernet up to 550 meters in data centers and enterprise environments.

How does OM4-550 differ from OM3 cables?

OM4-550 offers higher bandwidth (4700 MHz·km vs. 2000 MHz·km for OM3) and longer reach (550m vs. 300m for 10Gbps), making it superior for advanced applications.

What types of environments suit this cable best?

It’ s ideal for indoor settings like data centers, office buildings, and telecom rooms where high data rates and reliability are critical.

Can it support speeds beyond 10 Gigabit?

Yes, it supports 40Gbps and 100Gbps up to 150 meters, providing flexibility for future network upgrades.

What is the attenuation specification for OM4-550?

It has a maximum attenuation of 3.0 dB/km at 850nm, ensuring lower signal loss compared to OM3’ s 3.5 dB/km.

Is the OM4-550 cable backward compatible?

Yes, it’ s fully compatible with OM3 and earlier multimode fibers, allowing seamless integration into existing systems.

What connectors work with this cable?

It supports various connectors like LC, SC, and MPO, offering versatility for different network setups.

Why choose OM4-550 for indoor applications?

Its high bandwidth, extended reach, and durability make it a cost-effective, future-proof solution for indoor high-speed connectivity needs.