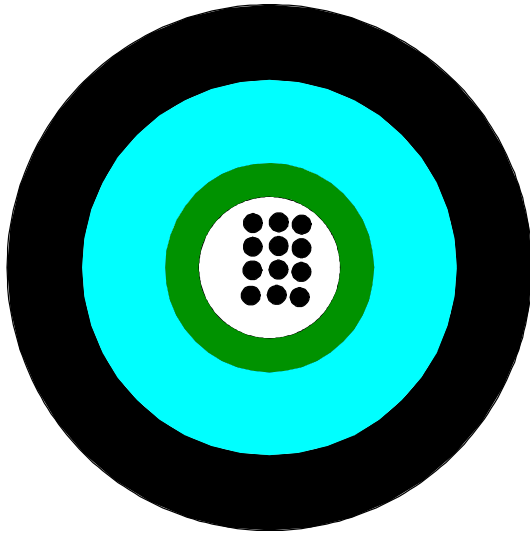


Draka Black Universal central tube cable

1000N central tube cable w 2 – 24 fibres, glass elements and black FireBur® sheath, VDE U-DQ(ZN)BH



Application and installation

This cable can be used for LAN and WAN backbones, telecom access lines, fibre to business and fibre to the building drop connections as well as fibre to the home drop and access connections.

With its FireBur® LSHF sheathing this cable is ideal for mixed indoor and outdoor installation. It is equally suited for installation in ducts and on trays.

Standards

ISO 11801 2nd edition, EN 50173-1:2002, IEC 60794-1

Flame resistance

IEC 60332-1-2, IEC 60754-1, IEC 60754-2, IEC 61034-2

Construction

Loose tube	Ø2.8 mm jelly filled loose tube with 2 – 16 fibres; Ø3.5 mm loose tube with 24 fibres			
Fibre colour code	1	Red	13	Yellow w/mark every 70 mm
	2	Green	14	White w/mark every 70 mm
	3	Blue	15	Grey w/mark every 70 mm
	4	Yellow	16	Turquoise w/mark every 70 mm
	5	White	17	Orange w/mark every 70 mm
	6	Grey	18	Pink w/mark every 70 mm
	7	Brown	19	Yellow w/mark every 35 mm
	8	Violet	20	White w/mark every 35 mm
	9	Turquoise	21	Grey w/mark every 35 mm
	10	Black	22	Turquoise w/mark every 35 mm
	11	Orange	23	Orange w/mark every 35 mm
	12	Pink	24	Pink w/mark every 35 mm

Draka Black Universal central tube cable

Strength member	Waterblocked E-Glass fibre elements
Sheath	1.0 mm black FireBur® sheath, UV stabilised, IEC 50290-2-27
Sheath marking	Draka I/O CT LSHF 1.0kN <Fibre count> <Fibre type><Fibre brand><Item No>05<Batch Number><Meter mark> U-DQ(ZN)BH <Fibre count> <Fibre family> <Mode field diameter> /125 <Transmission Class>

Physical properties

Attribute	IEC 60794-1-2 Method	Limits
Nominal outer diameter	-	2 - 16 fibres: 6.0 mm 18 - 24 fibres: 6.5 mm
Nominal weight	-	2 - 16 fibres: 40 kg/km 18 - 24 fibres: 45 kg/km
Maximum installation tensile strength	E1	1000 N (fibre strain less than 1/2 of proof test level)
Short term tensile strength	E1	750 N (fibre strain less than 1/3 of proof test level)
Permanent tensile strength	E1	500 N (no attenuation change, fibre strain less than 1/4 of proof test level)
Compressive strength (crush)	E3	1500 N
Impact	E4	15 Nm (no attenuation change, no broken cable elements)
Torsion	E7	5 cycles ± 1 turn
Kink	E10	The cables do not form a kink when a loop is drawn together to a diameter of 100 mm
Min. bending radius, unloaded	E11	R = 60 mm
Min. bending radius, loaded	-	R = 100 mm
Temperature range	F1	Storage: -40°C to +60°C Installation: -30°C to +40°C Operation: -30°C to +60°C.
Water penetration	F5B	No water on free end
Heat of combustion	-	2-16 fibres: 630 MJ/km = 0.18 kWh/m 24 fibres: 800 MJ/km = 0.22 kWh/m

Product codes – ordering information

Prysmian group material code	Prysmian Group material description	Draka Material code	Fibre count	Fibre type	Fibre data sheet
60019958	DR I/O CT LSHF 1.0kN 4 OM2B BK		4	MaxCap-BB-OM2 50/125 multi mode	C34
	DR I/O CT LSHF 1.0kN 6 OM2B BK		6	MaxCap-BB-OM2 50/125 multi mode	C34
	DR I/O CT LSHF 1.0kN 8 OM2B BK		8	MaxCap-BB-OM2 50/125 multi mode	C34
	DR I/O CT LSHF 1.0kN 12 OM2B BK		12	MaxCap-BB-OM2 50/125 multi mode	C34
	DR I/O CT LSHF 1.0kN 24 OM2B BK		24	MaxCap-BB-OM2 50/125 multi mode	C34
60019960	DR I/O CT LSHF 1.0kN 4 OM3B BK		4	MaxCap-BB-OM3 50/125 multi mode	C31
	DR I/O CT LSHF 1.0kN 6 OM3B BK		6	MaxCap-BB-OM3 50/125 multi mode	C31
60019961	DR I/O CT LSHF 1.0kN 8 OM3B BK		8	MaxCap-BB-OM3 50/125 multi mode	C31
60019962	DR I/O CT LSHF 1.0kN 12 OM3B BK		12	MaxCap-BB-OM3 50/125 multi mode	C31
60019963	DR I/O CT LSHF 1.0kN 24 OM3B BK		24	MaxCap-BB-OM3 50/125 multi mode	C31
60032535	DR I/O CT LSHF 1.0kN 4 OM4B BK		4	MaxCap-BB-OM4 50/125 multi mode	C32
	DR I/O CT LSHF 1.0kN 6 OM4B BK		6	MaxCap-BB-OM4 50/125 multi mode	C32
	DR I/O CT LSHF 1.0kN 12 OM4B BK		12	MaxCap-BB-OM4 50/125 multi mode	C32
60020747	8				

Draka Black Universal central tube cable

60029959	DR I/O CT LSHF 1.0kN 24 OM4B BK		24	MaxCap-BB-OM4 50/125 multi mode	C32
60020312	DR I/O CT LSHF 1.0kN 4 MM61 BK		4	OM1 62.5/125 multi mode	C02
	DR I/O CT LSHF 1.0kN 6 MM61 BK		6	OM1 62.5/125 multi mode	C02
	DR I/O CT LSHF 1.0kN 8 MM61 BK		8	OM1 62.5/125 multi mode	C02
	DR I/O CT LSHF 1.0kN 12 MM61 BK		12	OM1 62.5/125 multi mode	C02
	DR I/O CT LSHF 1.0kN 24 MM61 BK		24	OM1 62.5/125 multi mode	C02
60027528	DR I/O CT LSHF 1.0kN 4 SM2D BK		4	OS2 Single mode G652.D	C03e
	DR I/O CT LSHF 1.0kN 6 SM2D BK		6	OS2 Single mode G652.D	C03e
60026545	DR I/O CT LSHF 1.0kN 8 SM2D BK		8	OS2 Single mode G652.D	C03e
60011334	DR I/O CT LSHF 1.0kN 12 SM2D BK		12	OS2 Single mode G652.D	C03e
60029590	DR I/O CT LSHF 1.0kN 24 SM2D BK		24	OS2 Single mode G652.D	C03e
	DR I/O CT LSHF 1.0kN 4 SM2D BK		4	BendBright ^{XS} G.657.A2	C24
	DR I/O CT LSHF 1.0kN 6 SM2D BK		6	BendBright ^{XS} G.657.A2	C24

© PRYSMIAN GROUP 2010, All Rights Reserved

All sizes and values without tolerances are reference values. Specifications are for product as supplied by Prysmian Group: any modification or alteration afterwards of product may give different result.

The information contained within this document must not be copied, reprinted or reproduced in any form, either wholly or in part, without the written consent of Prysmian Group. The information is believed to be correct at the time of issue. Prysmian Group reserves the right to amend this specification without prior notice. This specification is not contractually valid unless specifically authorised by Prysmian Group.

C02: General purpose 62.5 µm fibre

Properties of cabled OM1 fibre for use at 850 nm and at 1300 nm

General and application

This fibre is a graded-index multimode fibre suitable for transmission speeds of up to 10 Gb/s (33m 10GBASE-SX). It has a 62.5 µm core diameter and a 125 µm cladding diameter. The fibre is designed for use at 850 and/or 1300 nm.

This fibre is suitable for use in premises wiring application like LAN's with video, data and or voice services using LED, VCSEL and Fabry-Perot laser sources.

Standards

IEC 60793-2-10 Category A1b	ISO/IEC 11801 category OM1.
EN 60793-2-10: type A1b	IEEE 802.3 - 2002. with amendment 802.3ae - 2002.
TIA/EIA-492 AAAA	ANSI/TIA/EIA-568.B.3 – 2000
EN 50173-1:2007 category OM1	IBM™ Fibre Optic Channel Links; ESCON™

Optical properties

<i>Attribute</i>	<i>Measurement method</i>	<i>Units</i>	<i>Limits</i>
Attenuation limit according to IEC 60793-2-10, 850 nm	IEC 60793-1-40	dB/km	≤ 3.5
Attenuation limit according to IEC 60793-2-10, 1300 nm	IEC 60793-1-40	dB/km	≤ 1.5
Inhomogeneity of OTDR trace for any two 1000 metre fibre lengths	IEC 60793-1-40	dB/km	Max. 0.1

Cable attenuation

Maximum attenuation value of cable at 850 nm	IEC 60793-1-40	dB/km	≤ 3.2
Maximum attenuation value of cable at 1300 nm	IEC 60793-1-40	dB/km	≤ 1.0

Bandwidth

Overfilled (OFL) modal bandwidth at 850 nm	IEC 60793-1-41	MHz • km	≥ 200
Overfilled (OFL) modal bandwidth at 1300 nm	IEC 60793-1-41	MHz • km	≥ 600
Effective Modal Bandwidth (EMB) at 850 nm	IEC 60793-1-49	MHz • km	-

Group index of refraction

Group index of refraction at 850 nm	IEC 60793-1-22	-	1.496
Group index of refraction at 1300 nm	IEC 60793-1-22	-	1.491

C02: General purpose 62.5 μm fibre

Geometrical properties

Attribute	Measurement method	Units	Limits
Core diameter	IEC 60793-1-20	μm	62.5 ± 2.5
Cladding diameter	IEC 60793-1-20	μm	125.0 ± 1.0
Cladding non-circularity	IEC 60793-1-20	%	≤ 1.0
Core non-circularity	IEC 60793-1-20	%	≤ 5
Core-cladding concentricity error	IEC 60793-1-20	μm	≤ 1.5
Primary coating diameter – uncoloured	IEC 60793-1-21	μm	242 ± 7
Primary coating diameter - coloured	IEC 60793-1-21	μm	250 ± 15
Primary coating non-circularity	IEC 60793-1-21	%	≤ 5
Primary coating-cladding concentricity error	IEC 60793-1-21	μm	≤ 6

Mechanical properties

Attribute	Measurement method	Units	Limits
Proof stress level	IEC 60793-1-30	GPa	≥ 0.7 (≈ 1 %)
Typical average strip force	IEC 60793-1-32	N	1.7
Strip force (peak)	IEC 60793-1-32	N	1.3 ≤ F _{peak.strip} ≤ 8.9

© PRYSMIAN GROUP 2012, All Rights Reserved

All sizes and values without tolerances are reference values. Specifications are for product as supplied by Prysmian Group: any modification or alteration afterwards of product may give different result.

The information contained within this document must not be copied, reprinted or reproduced in any form, either wholly or in part, without the written consent of Prysmian Group. The information is believed to be correct at the time of issue. Prysmian Group reserves the right to amend this specification without prior notice. This specification is not contractually valid unless specifically authorised by Prysmian Group.