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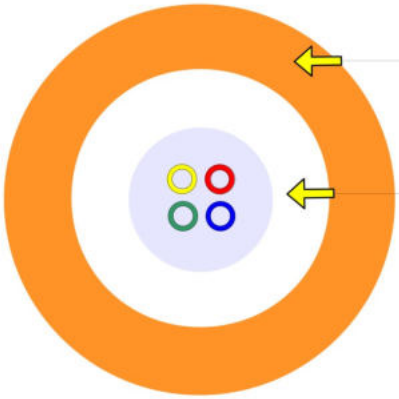
Uni Tube Cable

ID: **Z044**

A-D2Y HD Blown Cable 2,0 max. 4F

This cable is suitable for air-blown installation.



Orange HDPE outer jacket, UV stable
Other jacket colours available on request

Gel filled PBT loose tube with optical fibres

Fibre colour coding

According to IEC 60304

1 Red
2 Green
3 Blue
4 Yellow

Other fibre colour sequences available on request

Fibre Type

Single mode fiber 9/125 (G.652, G.655, G.656, G.657)

See the Fibre Specification sheet

Sheat Marking

Print colour	Black
Print method	INK-Jet
Print legend	manufacturer's name, cable type job number, length marking @ 1 m intervals

Other print legends available on request

Order example

2100 m A-D2Y HD 4E9/125G.652D jacket colour ORG, cable specification Z044

Mechanical and Environmental properties

Max. tensile strength	*E1A	40 N
Crush resistance	*E3	1500 N/10cm
Impact resistance	*E4	3 impacts (w/8N.m)
Min. bend radius	*E11A	15× cable diameter
	*E11B	20× cable diameter (load)
Moisture resistance	*F5	passed
Compound flow	*E14	30 cm / 24h / 70°C passed
Temperature range	*F1	
installation		-5 °C to + 50 °C
operation		-20 °C to + 70 °C
storage		-20 °C to + 70 °C
Cable informative nominal weight		3,3 kg/km
Standard put-up length		2100 m
Packaging		Plywood drum
Loose tube diameter		1,15 mm
Outer jacket thickness		0,425± 0,15mm
Cable outer diameter		2,0 ± 0,2 mm

* IEC 60794-1-2

Note: When installing or assembly under temperature bellow 5°C cable has to be stock in temp of 20°C at least 24h before installation.

Cable life time - minimum 30 years

teleglas GmbH . Bleicheroder Str. 91 . DE-99752 Lipprechterode
Telefon +49 (0)36338 597325 . Fax: +49 (0)36338 597326
E-Mail info@teleglas.de . www.teleglas.de
Geschäftsführer Stephan Pein

Bankverbindung Kreissparkasse Nordhausen
IBAN DE25 8205 4052 0305 0011 75 . BIC HELADEF1NOR
UST-ID-Nr. DE 266 992 951 . Amtsgericht Jena HRB 504520
Gerichtsstand ist Nordhausen

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Fibre specification

Values are valid for cabled fibre.

Multi mode fiber		62,5/125 µm OM1	50/125 µm OM2	50/125 µm OM2	50/125 µm OM2	50/125 µm OM3	50/125 µm OM4
Bandwidth (overfilled launch)							
@ 850 nm	Mhz.km	≥220	≥500	≥600	≥600	≥1500	≥3500
@ 1300 nm		≥600	≥500	≥1200	≥1200	≥500	≥ 500
Bandwidth (laser EMB[3])							
@ 850 nm	Mhz.km	-	-	-	-	≥2000	≥4700
@ 1300 nm		-	-	-	-	≥ 500	≥ 500
1Gbps Ethernet operation Link Length							
@ 850 nm	(m)	≤300	550[1]	≤600[1]	≤750[1]	-	-
@ 1300 nm		≤550	550[2]	≤600[2]	≤2000[2]	-	-
10 Gigabit Ethernet Link Lengths						-	-
@ 850 nm	(m)	-	-	-	-	≤300	550
Attenuation- Loose Tube Cables							
@ 850 nm (typical / maximum)	dB/km	2.6 / 3.2	2.4 / 3.5	2.3 / 3.0	2.3 / 3.0	2.0 / 3.0	2.0 / 3.0
@ 1300 nm (typical / maximum)		0.5 / 1.0	0.7 / 1.5	0.6 / 1.0	0.6 / 1.0	0.5 / 1.0	0.5 / 1.0
Attenuation-Tight Buffer Cables							
@ 850 nm (typical / maximum)	dB/km	2.6 / 3.2	2.0 / 3.5	2.0 / 3.5	2.0 / 3.5	2.1 / 3.5	2.1 / 3.5
@ 1300 nm (typical / maximum)		0.5 / 1.0	0.5 / 1.5	0.5 / 1.5	0.5 / 1.5	0.7 / 1.5	0.7 / 1.5
Numerical Aperture	µm	0.275 ± 0.015	0.20 ± 0.015	0.20 ± 0.015	0.20 ± 0.015	0.20 ± 0.015	0.20 ± 0.015
Core Diameter	µm	62.5 ± 2.5	50.0 ± 2.5	50.0 ± 2.5	50.0 ± 2.5	50.0 ± 2.5	50.0 ± 2.5
Core Non-Circularity		≤5 %	≤5 %	≤5 %	≤5 %	≤5 %	
Cladding Diameter	µm	125 ± 1.0	125 ± 1.0	125 ± 1.0	125 ± 1.0	125 ± 1.0	125 ± 1.0
Clad Non-Circularity		≤1 %	≤1 %	≤1 %	≤1 %	≤1 %	≤1 %
Coating Diameter	µm	245 ± 10	245 ± 10	245 ± 10	245 ± 10	245 ± 10	245 ± 10
Coating Non-Circularity	%	≤5	≤5	≤5	≤5	≤5	
Core/Clad Concentricity Error	µm	≤1.0	≤1.5	≤1.5	≤1.5	≤1.5	≤1.5
Coating-Clad Concentricity Error	µm	≤8	≤8	≤8	≤8	≤8	≤8
Zero Dispersion Wavelength (λ0)	nm	1320 – 1365	1295 – 1340	1295 – 1340	1295 – 1340	1295 – 1340	1295 – 1340
Group Refractive Index							
at 850 nm		1.496	1.483	1.483	1.483	1.483	1.483
at 1300 nm		1.491	1.479	1.479	1.479	1.479	1.479

1 - serial Laser 1000BASE-SX

2 - serial Laser 1000BASE-LX

3 - Effective Modal Bandwidth per TIA/EIA-492AAAC and draft IEC 60793-2-10 for type A1a.2, ensured by DMD performance specifications for sources meeting launch conditions specified in 10Gbit Ethernet (IEEE 802.3ae), OIF OC-192/STM-64 VSR-4-04, and 10 Gbit Fibre Channel (10GFC).

Single mode fiber		9/125µm OS2 G.652D – ZWP	9/125µm OS2 G.657.A1	9/125µm OS2 G.657.A2	9/125µm OS2 G.657.B3	9/125µm G.655C&D	9/125µm G.655C &E , G.656
Chromatic Dispersion							
@ 1285 - 1330 nm		≤ 3.5	-	-	-	-	-
@ 1550 nm		≤ 18	-	-	-	-	-
@ 1530 – 1565 nm	ps/(nm.km)	-	-	-	-	2.6 – 6.0	5.5 – 8.9
@ 1565 – 1625 nm		-	-	-	-	4.0 – 8.9	6.9 – 11.4
@ 1460 – 1625 nm		-	-	-	-	-1.0 – 8.9	2.0 – 11.4
Attenuation- Loose Tube Cables							
@ 1310 nm (typical / maximum)		0.31 / 0.35	0.31 / 0.35	0.31 / 0.35	0.31 / 0.35	-	-
@ 1550 nm (typical / maximum)	dB/km	0.20 / 0.24	0.20 / 0.24	0.20 / 0.24	0.20 / 0.24	0.25 / 0.30	0.25 / 0.30
@ 1625 nm (typical / maximum)		0.21 / 0.26	0.21 / 0.26	0.21 / 0.26	0.21 / 0.26	0.27/ 0.34	0.27/ 0.34
Attenuation-Tight Buffer Cables							
@ 1310 nm (typical / maximum)		0.35 / 0.40	0.35 / 0.40	0.35 / 0.40	0.35 / 0.40	-	-
@ 1550 nm (typical / maximum)	dB/km	0.25 / 0.30	0.25 / 0.30	0.25 / 0.30	0.25 / 0.30	0.25 / 0.35	0.25 / 0.35
@ 1625 nm (typical / maximum)		0.35 / 0.40	0.35 / 0.40	0.35 / 0.40	0.35 / 0.40	0.27/ 0.40	0.27/ 0.40
Cable Cut-Off Wavelength (λcc)	µm	≤1260	≤1260	≤1260	≤1260	-	-
Mode Field Diameter							
@ 1310 nm	µm	9.2 ± 0.4	8.6 - 9.3	8.8 ± 0,4	6.3 – 9.5	-	-
@ 1550 nm	µm	10.4 ± 0.5	9.5 -10.5	-	9.2 -10.4	8.4 ± 0.6	8.6 ± 0.4
Cladding Diameter	µm	125.0 ± 0.7	125.0 ± 0.7	125.0 ± 0.7	125.0 ± 0.7	125.0 ± 0.7	125.0 ± 0.7
Clad Non-Circularity		≤1%	≤1%	≤1%	≤1µm	≤0,7%	≤0,7%
Coating Diameter	µm	235 – 245	235 – 245	235 – 245	245±10	245±5	245±5
Core/Clad Concentricity Error	µm	≤0.5	≤0.5	≤0.5	-	≤0.5	≤0.5
Coating-Clad Concentricity Error		≤12µm	≤12µm	≤5%	≤5%	≤10µm	≤10µm
Zero Dispersion Wavelength (λ0)	nm	1302 – 1322	1302 – 1322	1302 – 1322	1302 – 1324	-	≤1405
Group Refractive Index							
@ 1310 nm		1.467	1.467	-	-	1.471	1.471
@ 1550 nm		1.468	1.468	-	1.468	1.470	1.470
Fiber PMD Individual fiber	ps/√km	0.1	0.1	0.1	0.2	0.1	0.1

ZWP – Zero Water Peak

teleglas GmbH . Bleicheroder Str. 91 . DE-99752 Lipprechterode
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