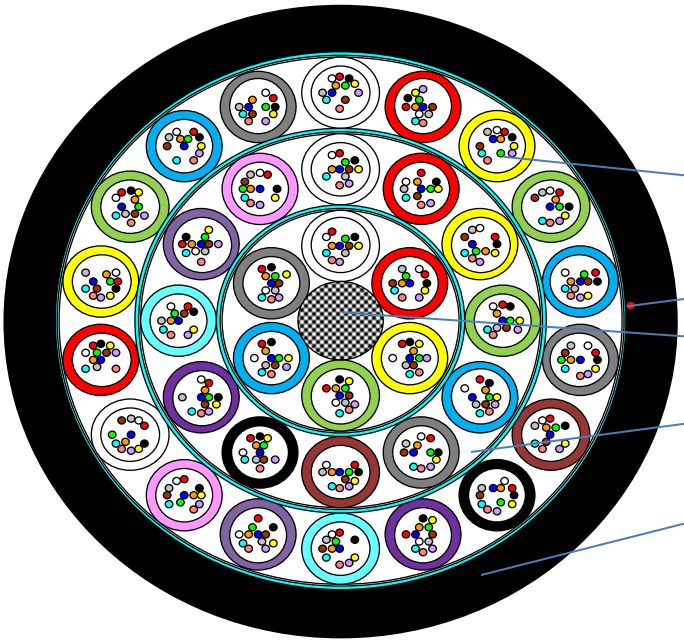
Data Sheet

CORNING

Non-metallic fiber optic duct cables

with 12 to 432 single-mode fibers E9/125 SMF 28e+™



Principle drawing: A-DQ(ZN)2Y 36x12 E9/125 LT 2.3

Design and special properties

- Light, thin and robust cables
- Cables for pulling into duct systems, laying in concrete channels or on cable racks
- Optimized cable stiffness yields an excellent blowing performance
- Fully dielectric cable requires no grounding or potential equalization
- Dry cable core by swellable elements
- HDPE-jacket, UV-resistant
- Single-layer stranded construction up to 144 fibers
- Double-layer stranded construction for > 144 up to 288 fibers
- Triple-layer stranded construction for > 288 up to 432 fibers
- The used Corning® single-mode fibers SMF-28e® are fully compliant to standard ITU-T G.652.D (reduced OH- peak) showing low attenuation throughout the 1285 nm to 1625 nm wavelength range
- Customer standard for fiber and loose tube coloring
- Cable design according to Corning standard

Coloring

Fibers: white, red, yellow, green, blue, grey, brown, black, violet, turquoise, orange, pink
Buffer tubes: 12-144: white, red, yellow, green, blue, grey, brown, black, violet, turquoise, orange, pink

192: 1.Layer: white, red, yellow, green 2.Layer: : white, red, yellow, green, blue, grey, brown, black, violet, turquoise, orange, pink

288: 1.Layer: white, red, yellow, green, blue, grey, brown, black, violet 2.Layer: white, red, yellow, green, blue, grey, brown, black, violet, turquoise, orange, pink, white , red, yellow

432: 1.Layer: white, red, yellow, green, blue, grey 2.Layer: white, red, yellow, green, blue, grey, brown, black, violet, turquoise, orange, pink 3.Layer: white, red, yellow, green, blue, grey, brown, black, violet, turquoise, orange, pink, white, red, yellow, green, blue, grey

Filling elements: natural, if required to fill up the cable core

Outer jacket: black

Cable printing: M#Gxxx-9 QXXE#CORNING#Year.

xxx-Fiber count of the cable

Method: hot foil printing

Characteristics of single-mode fibers E9/125 SMF-28e+®

Optical and mechanical:

Mode-field diameter at 1310 nm	[µm]	9.2 ± 0.4
Cladding diameter	[µm]	125.0 ± 0.7
Coating diameter	[µm]	242 ± 5
Max. attenuation at 1310 nm	[dB/km]	≤ 0.36
Max. attenuation at 1550 nm	[dB/km]	≤ 0.22
Typical attenuation at 1310 nm	[dB/km]	≤ 0.34
Typical a attenuation at 1550 nm	[dB/km]	≤ 0.20
Attenuation at 1383 nm	[dB/km]	≤ 0.36
Dispersion in the range 1285 to 1330 nm	[ps/(nm∗km)]	≤ 3.5
Dispersion at 1550 nm	[ps/(nm∗km)]	≤ 18
Cable cutoff wavelength ($/1_{cc}$)	[nm]	≤ 1260
PMD Link Design Value	Ps/√km	≤ 0.06*

*) Complies with IEC 60794-3:2001,Section 5.5, Method 1 (m=20,Q=0,01%)
The fibers are fully in compliance with ITU-T G.652.D and annexes

Technical cable characteristics

Mechanical and environmental:

Max. tensile load during installation		[N]	2700
Crush (test methode acc. IEC 69794-1-2 E3)		[N/10 cm]	2000
Impact (test methode acc. IEC 69794-1-2 E4, 5 J, r=300 mm)		impacts	1 in 3 pos.
Temperature range	Laying and installation	[°C]	-15 to 50
	Operation		-40 to 70
	Transport and storage		-40 to 70
Water penetration (0.1 bar / 24 h)		[m]	≤ 1

Technical cable characteristics

Cable type **A-DQ(ZN)2Y …**	No. of fibers	No. of tubes	No. of stranding elements	Outer Ø, approx. [mm]	Weight, approx. [kg/km]	Min. bending radius during install. [mm]
1x12 to 6x12	12 - 72	1 - 6	6	10,5	80	180
8x12	96	8	8	11,9	103	205
12x12	144	12	12	14,9	163	240
(4x12)+(12x12)	192	16	18	15,1	160	250
(9x12)+(15x12)	288	24	24	17,2	213	295
(6x12)+(12x12)+ (18x12)	432	36	36	19.9	275	358

Delivery length

Delivery length up to 6 km

Part Numbers of the cable

Cable type	**Part Number**
A-DQ(ZN2Y 1x12 E9/125 LT 2.3	012ER4-xxxxxP20
A-DQ(ZN2Y 2x12 E9/125 LT 2.3	024ER4-xxxxxP20
A-DQ(ZN2Y 4x12 E9/125 LT 2.3	048ER4-xxxxxP20
A-DQ(ZN2Y 8x12 E9/125 LT 2.3	096ER4-xxxxxP20
A-DQ(ZN2Y 12x12 E9/125 LT 2.3	144ER4-xxxxxP20
A-DQ(ZN2Y 16x12 E9/125 LT 2.3	192ER4-xxxxxP20
A-DQ(ZN2Y 24x12 E9/125 LT 2.3	288ER4-xxxxxP20
A-DQ(ZN2Y 36x12 E9/125 LT 2.3	432ER4-xxxxxP20