D-DAC Dca

Dry Direct Access Cable Dca

Group: D-DAC Dca

Date: 29-03-2024

The Dry Direct Access Cable Dca (D-DAC Dca) is a light-weight, nonmetallic, direct-buried customer drop cable for universal applications. This cable is robust, water-protected and has a flame retardant outersheath. The cable has a flexible, easystrippable sheath and small diameter, making it perfectly suitable for indoor routing. The glass-fibres are dry-buffered, for fast and easy stripping and peeling. The D-DAC is suitable for installation outdoor (directly into the ground, above ground on facades) and indoor (horizontal and vertical cable channels). Especially due to its fully dry design (no jelly), the cable can be applied as riser cable. This cable is intended for connecting homes in high-rise buildings (MDU's) from the last underground distribution-point in the Access network, without any transitionpoints. This product offers a perfect, fast and cost effective solution for ‘Fibre To The Home' connections in MDU’s.

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Product characteristics

Cable type	DAC
Fibre type	Single mode 9/125
Optical fibre standard	ITU-T G.657.A1
Cable metal free	Yes
Strain relief	Yes
Material outer sheath	LSZH
Colour outer sheath	Black

Application

Test procedures	EN IEC 60794-1-2
Application	Inside/Outside

Optical specification

Max. attenuation @ 1310 nm	0.38 dB/km
Max. attenuation @ 1550 nm	0.25 dB/km
Max. attenuation @ 1625 nm	0.3 dB/km

Environmental specification

Longitudinal watertight construction	Super Absorbing Polymer
Installation temperature	-10/50 °C
Operational temperature range Ta1 - Tb1	-30/70 °C
Max. attenuation increase during Ta1 - Tb1	0.05 dB
Operational temperature range Ta2 - Tb2	-40/70 °C
Max. attenuation increase during Ta2 - Tb2	0.15 dB
UV resistant	Yes
UV-protection	ISO 4892/2

Products

Article number	Description	Outer diameter approx.	Netto weight (kg/m)	Min. bending radius during installation	Tensile load short term (tm)	Tensile load long term (tl)	Min. bending radius after installation

TECHNICAL PRODUCT INFORMATION

Product characteristics - optical fibres **21-06-2023**

Fibre specification G.657.A1

Fibre	
Type of fibre	Hydrogen passivated, dispersion unshifted, matched cladding, bending loss insensitive single mode fibre 9/125 µm Full compatible with G.652.D fibre Optical and geometrical properties exceed ITU-recommendations G.652.D and G.657.A1
Standard	IEC-60793-2-50, B-657.A1
Standard	ITU-T G.657.A1

Characteristics

Parameter		Properties	Unit
Mode field diameter: 1310 nm		9.0 ± 0.3	µm
Mode field diameter: 1550 nm		10.2 ± 0.4	µm
Core non-circularity	max.	6	%
Core/cladding concentricity error	max.	0.4	µm
Cladding diameter		125.0 ± 0.5	µm
Cladding non-circularity	max.	0.7	%
Coating diameter		242 ± 5	µm
Coating/cladding concentricity error	max.	8	µm
Temperature sensitivity: -60 to +85 ºC	max.	0.05	dB/km
Bending sensitivity - 100 turns around Ø50 mm - 1550 nm	max.	0.05	dB
Bending sensitivity - 100 turns around Ø60 mm - 1625 nm	max.	0.05	dB
Bending sensitivity - 10 turns around Ø30 mm - 1550 nm	max.	0.1	dB
Bending sensitivity - 10 turns around Ø30 mm - 1625 nm	max.	0.3	dB
Bending sensitivity - 1 turn around Ø20 mm - 1550 nm	max.	0.75	dB
Bending sensitivity - 1 turn around Ø20 mm - 1625 nm	max.	1.5	dB
Proof test level	min.	0.70	GPa
Fibre curl	min.	4	m
Cable cut-off wavelength	max.	1260	nm
Zero-dispersion wavelength		1300 – 1324	nm
Zero-dispersion slope	max.	0.090	ps/nm^2·km
Chromatic dispersion: 1285 - 1330 nm	max.	|3.2|	ps/nm·km
Chromatic dispersion: 1550 n	max.	17	ps/nm·km
Chromatic dispersion: 1625 nm	max.	21	ps/nm·km
Polarisation mode dispersion: max. individual fibre	max.	0.1	ps/√km
PMD_Q	max.	0.04	ps/√km
Max. attenuation at 1383 nm (α_{1383}) [note a]	< max.	α_{1310}	-
Effective group core refractive index: 1310 nm		1.4671	-
Effective group core refractive index: 1550 nm		1.4675	-
Effective group core refractive index: 1625 nm		1.4680	-

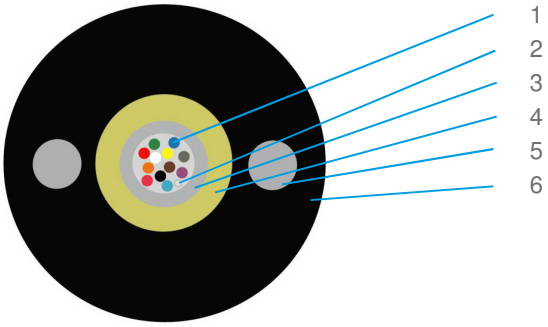
[note a: after hydrogen ageing]

Revision date: 3-12-2019

TECHNICAL PRODUCT INFORMATION

Cable construction and colour code

D-DAC Dca



Description

1	Optical fibres
2	Swelling yarn
3	Buffer tube
4	Reinforcement
5	Rigid elements
6	Outer sheath

Standard colours

Fibres			
Group 1		Group 2	
1	Red	13	Red +t
2	Green	14	Green +t
3	Blue	15	Blue +t
4	Yellow	16	Yellow +t
5	White	17	White +t
6	Grey	18	Grey +t
7	Brown	19	Brown +t
8	Violet	20	Violet +t
9	Turquoise	21	Turquoise +t
10	Black	22	Natural +t
11	Orange	23	Orange +t
12	Pink	24	Pink +t

note +t: indicates a black tracer

DECLARATION OF PERFORMANCE (DOP) CE

Nr. DoP0054

1. Unique identification code for the product type:
See appendix 1 (page 2/2)

2. Intended use of the construction product:
Supply of optical fibre cables in buildings and other civil engineering works with the objective of limiting the generation and spread of fire and smoke.

3. Manufacturer:
TKF (B.V. Twentsche Kabelfabriek)
Spinnerstraat 15
7481 KJ Haaksbergen
Netherlands
Tel.: +31(0)53 573 22 55
E-mail: info@tkf.nl

4. System of assessment and verification of constancy of performance of the construction product asset out in CPR, Annex V: **System 3**

5. Notified body: **SP NB 0402**

6. Declared performance:

Essential characteristics	Performance	Harmonized technical specification
Reaction to fire	Dca s1 d2	EN50575:2014/A1:2016
Dangerous substances	NPD	(EC) No 1907/2006, (REACH)

7. The performance of the product identified is in conformity with the declared performance.

This declaration of performance is issued under the sole responsibility of the manufacturer identified in this document.

Signed for and on behalf of the manufacturer by:

H. Woldhuis
R&D Manager Optical Fibre Cables

Haaksbergen, March 17th 2023

Signature

Appendix 1

Product type	Number of tubes	Number of fibres
D-DAC Dca	1 - 2	2 - 24

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C. Bacon
Sales Director at Webro

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