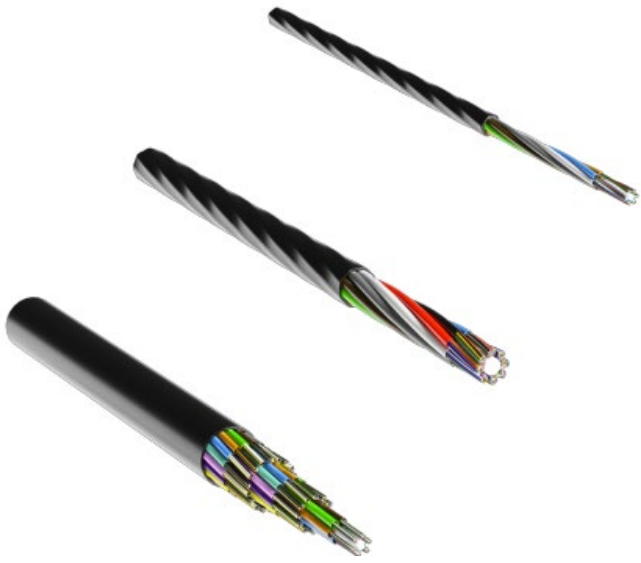
Micro Cables 250um

High Performance cable (2C ~432C)

(Part # KN-ABC-G657A1-250)

The Knet Air Blowing Cable series of micro cables are designed for optimal installation performance, particularly when blown into microducts. These cables excel in access networks with challenging routes, thanks to their enhanced performance. Key parameters such as cable diameter, sheath friction, and cable stiffness are optimized to ensure the best installation experience without compromising mechanical or environmental properties.

The micro cables feature a slim loose tube design, accommodating up to 36 tubes per cable. This design simplifies fiber preparation and mid-span access. These cables are ideal for long-distance, air-blown installations in microducts with inner diameters ranging from 8 to 12 mm. They also offer excellent bend performance and operate efficiently across a wide temperature range.



Features

- Up to 432 fibers
- Super slim design
- Excellent installation performance
- Unique design with robust inner tubes that do not kink
- Temperature range from -45 to +70°C
- Excellent bend performance, ≥70 mm
- Easy to prepare and identify fibers
- Ultra low attenuation in cable

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Technical Information

Specification

ITEMS	DESCRIPTION		
Product Color	Black Sheath		
Color Code	TIA598		
Temperature, Operation [°C/°F]	-45 to +70 / -45 to + 158		
Temperature, Storage [°C/°F]	-45 to +70 / -45 to + 158		
Temperature, Installation [°C/°F]	-15 to +50 / + 5 to +122		
Water Blocking	Longitudinal water blocking according to IEC 60794-1-2-F5C		
Fiber Type	G.657A1		
Attenuation @Wavelength [nm]	1310	1383	1550
Typical Attenuation [dB/km]	0.32	0.32	0.18
Average Attenuation [dB/km]	0.33	0.33	0.21
Maximum Attenuation [dB/km]	0.36	0.36	0.23

Conformance

- Longitudinal water blocking according to IEC 60794-1-2-F5C. Mechanical and environmental tests in accordance with IEC 60794-5-10. Fiber parameters and tests according to the IEC series 60793-2 and 60793-1.

Marking

- The cables are length marked in meters, and the tubes and fibers are color coded according to TIA598 (Bellcore).

Installation Notes

Duct I/D (mm)	Cable O/D (mm)	Blowing Distance (m)
8-10	≤6.7 mm	2,000
12	≤8.0 mm	2,000
15-16	<11.0 mm	2,000
	11-12mm	1,500

- Installation performance verified on Knet test track, according to IEC 60794. Installation performance is affected by the installed path, environmental conditions, installation equipment etc. and actual performance may therefore deviate from the above specified values. If the cable is installed by blowing the temperature shall be -15 to +40°C. The cable shall not be stored in direct sunlight. The sun may heat up the cable over the permitted temperature limit.

Technical Details

Color Code Chart

TIA-598 Fibers and Tubes	1	2	3	4	5	6	7	8	9	10	11	12
	Blue	Orange	Green	Brown	Slate	White	Red	Black	Yellow	Violet	Rose	Aqua
	13	14	15	16	17	18	19	20	21	22	23	24
	Blue |	Orange |	Green |	Brown |	Slate |	White |	Red |	Clear |	Yellow |	Violet |	Rose |	Aqua |

Product Information

- Primary coated fiber: Silica, acrylate
- Loose tube: PA
- Central strength member: Glass fiber reinforced plastic, PE
- Slit up yarn: Aramide yarn
- Wrapping: Water blocking yarns
- Sheath: Polyethylene, halogen-free

Black fillers can replace empty white tubes

Technical Details

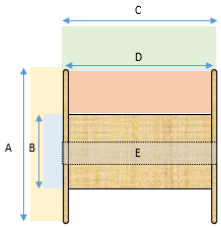
Cable Construction

Article	KVA-12/ 2C	KVA-14/ 4C	KVA-24/ 8C	KVA-34/ 12C	KVA-64/ 24C	KVA-112/ 12C	KVA-212/ 24C	KVA-312/ 36C	KVA-412/ 48C
Color	Black	Black	Black	Black	Black	Black	Black	Black	Black
No. of Fiber	2	4	8	12	24	12	24	36	48
Layout	1x2	1x4	2x4	3x4	6x4	1x12	2x12	3x12	4x12
Band Radius	75	75	75	75	75	75	75	75	75
Tensile Force, Installation [N]	430	430	430	430	430	1200	1200	1200	1200
Crush [N 100mm]	1000	1000	1000	1000	1000	2000	2000	2000	2000
Impact [J]	-	-	-	-	-	2	2	2	2
Diameter Φ [mm]	4.2	4.2	4.2	4.2	4.2	5.7	5.7	5.7	5.7
Weight [kg/km]	11.5	11.5	11.5	11.5	11.5	28	28	28	28
Length [m]	8000/K8 4000/K7	8000/K8 4000/K7	8000/K8 4000/K7	8000/K8 4000/K7	8000/K8 4000/K7	8000/K10 4000/K8	8000/K10 4000/K8	8000/K10 4000/K8	8000/K10 4000/K8

Article	KVA-612/ 72C	KVA-812/ 96C	KVA-624/ 144C	KVA-1212/ 144C	KVA-1212/ 144C	KVA-824/ 192C	KVA-2412/ 288C	KVA-3612/ 432C
Color	Black	Black	Black	Black	Black	Black	Black	Black
No. of Fiber	72	96	144	144	144	192	288	432
Layout	6x12	8x12	6x24	12x12	12x12	8x24	24x12	36x12
Band Radius	75	80	70	80	-	80	80	432
Tensile Force, Installation [N]	1200	1200	1600	2000	-	2500	2000	2000
Crush [N 100mm]	2000	1000	2000	2000	-	5000	2000	2000
Impact [J]	2	3	5	-	-	3	3	-
Diameter Φ [mm]	5.7	6.1	6.7	7.9	8.4	7.9	10.3	11.7
Weight [kg/km]	28	28	35	35	-	47	83	98
Length [m]	8000/K10 4000/K8	8000/K10 4000/K8	8000/K12 4000/K10	–	8000/K12 4000/K10	2000/K8 8000/K12 6000/K12 4000/K10	2000/K10 4000/K12	–

Technical Details

Packing Information

K/E	K/E	Unit	Drum Structure	Plastic				Wood			
				K7	K8	K10	K12	K7	K8	K10	K12
A	Flange diameter, lags excluded	mm		700	800	1000	1200	700	800	1000	1200
B	Drum barrel diameter	mm		325	375	500	630	325	375	500	630
C	Total width including bolts	mm		580	580	720	1002	576	576	715	980
D	Drum barrel width	mm		500	500	600	850	500	500	600	850
E	Spindle hole diameter	mm		75	75	107	107	75	75	406	106
F	Weight	kg		10	12.8	28	47	20	25	46	90