

# PRODUCT CATALOGUE



## FIBER OPTIC CABLES **TELCOLINE**

ADSS cables



ADSS flat cables



Universal cables



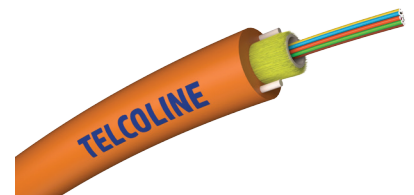
Duct cables



Microduct cables



DAC cables



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✔ Fiber optic multitube cables A-ADSS-MT-24-144J, 2.7-4kN, G.652D, span 100 m



- ▶ HDPE jacket (black)
- ▶ High tensile strength
- ▶ UV resistant
- ▶ Reinforced by aramid yarns
- ▶ Reinforced by central FRP rod
- ▶ Hydrophobic gel in tubes
- ▶ Ripcords
- ▶ Optical fibers G.652D

### Applications:

- ▶ Aerial installations, span up to 80 m (for 2.7kN cables), up to 90 m (for 3kN cables), up to 100 m (for 4kN cables)
- ▶ Microduct systems

Technical data	Product ID	Number of fibers	Number of fibers in tube	Number of tubes/fillers	Tube diameter [mm]	Cable diameter [mm]	Weight [kg/km]
	A-ADSS-MT-24J.2.7kN-4F	24	4	6/0	2	10	80
	A-ADSS-MT-24J.2.7kN-12F	24	12	2/4	2	10	80
	A-ADSS-MT-48J.2.7kN	48	12	4/2	2	10	81
	A-ADSS-MT-72J.2.7kN	72	12	6/0	2	10	83
	A-ADSS-MT-96J.2.7kN	96	12	8/0	2	10	85

Table 1. Fiber optic ADSS TELCOLINE cables 24-72F, 2.7kN, G.652D

Technical data	Product ID	Number of fibers	Number of fibers in tube	Number of tubes/fillers	Tube diameter [mm]	Cable diameter [mm]	Weight [kg/km]
	A-ADSS-MT-24J.3kN	24	4	6/0	2	10	82
	A-ADSS-MT-48J.3kN	48	12	4/2	2	10	82

Table 2. Fiber optic ADSS TELCOLINE cables 24-48F, 3kN, G.652D

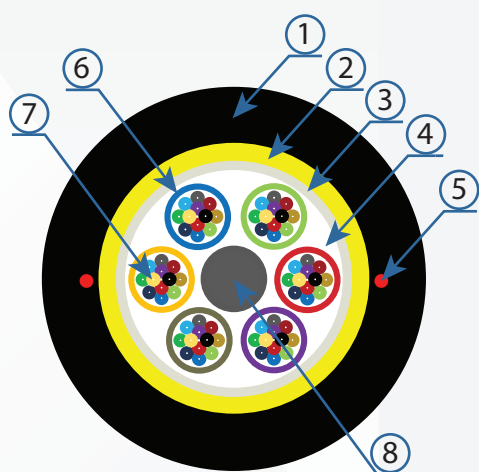
Technical data	Product ID	Number of fibers	Number of fibers in tube	Number of tubes/fillers	Tube diameter [mm]	Cable diameter [mm]	Weight [kg/km]
	A-ADSS-MT-24J.4kN-4F	24	4	6/0	2	10.5	80
	A-ADSS-MT-24J.4kN-12F	24	12	2/4	2	10.5	80
	A-ADSS-MT-48J.4kN-8F	48	8	6/0	2	10.5	81
	A-ADSS-MT-48J.4kN-12F	48	12	4/2	2	10.5	83
	A-ADSS-MT-72J.4kN	72	12	6/0	2	10.5	85
	A-ADSS-MT-96J.4kN	96	12	8/0	2	11.5	100
	A-ADSS-MT-144J.4kN	144	12	12/0	2	12	115

Table 3. Fiber optic ADSS TELCOLINE cables 24-144F, 4kN, G.652D



Mechanical parameters	IEC standard	2.7kN cables	3kN cables	4kN cables
Tensile Strength	IEC 794-1-E1	2700N	3000N	4000N
Crush resistance	IEC 794 -1-E3	2000N/100mm		
Impact resistance	IEC 794 -1-E4	20 impacts, 7 Nm		
Repeated bending	IEC 794-1-E6	20 [cycles(15xD)], load 120N		
Torsion resistance	IEC 794-1-E7	10 cycles 180°, 100N	10 cycles 180°, 120N	10 cycles 180°, 150N
UV resistance	ISO 4892/2	✓		
Water penetration resistance	IEC 794-1-F5B	✓		
Abrasion resistance	IEC 794-1-E2	✓		
Temperature cycling test	IEC 794-1-F1	2 thermal cycles in the range of -40°C+70°C		

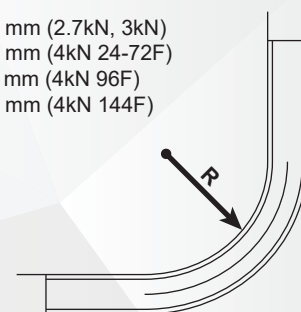
Table 4. Mechanical parameters of fiber optic ADSS TELCOLINE cables 24-144F, multitube, 2.7-4kN, G.652D



- 1 - HDPE jacket
- 2 - Aramid yarns
- 3 - Waterproof tape
- 4 - Hydrophobic gel
- 5 - Ripcord (x2)
- 6 - Tube with optical fibers
- 7 - Optical fibers G.652D
- 8 - Central FRP rod

**Minimum bending radius:**

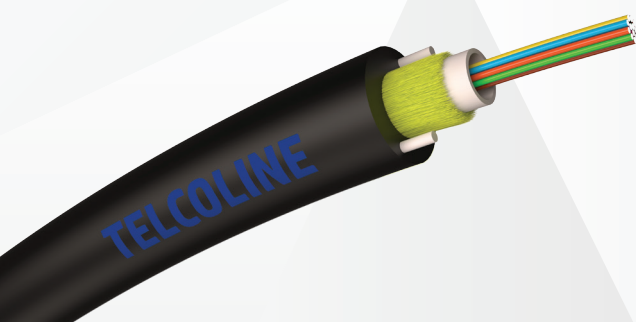
- R=100 mm (2.7kN, 3kN)
- R=105 mm (4kN 24-72F)
- R=115 mm (4kN 96F)
- R=120 mm (4kN 144F)



Structure of cable (example for 72F)



✓ Fiber optic unitube cables A-ADSS-UT.02-24J, 1.2-1.3 kN, G.652D/G.657, span 80 m



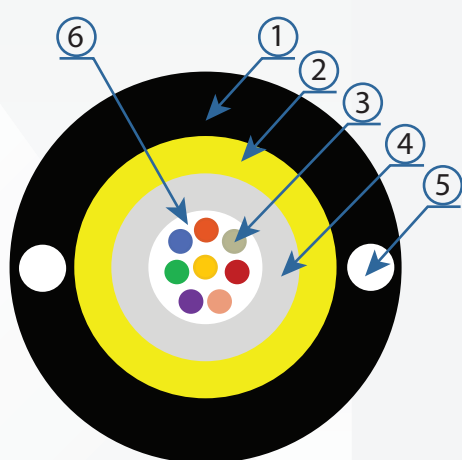
- ▶ HDPE jacket (black)
- ▶ Small diameters
- ▶ UV resistant
- ▶ Reinforced by aramid yarns
- ▶ Reinforced by two FRP rods
- ▶ Hydrophobic gel in tube
- ▶ Optical fibers G.652D/G.657

Technical data	Product ID	Number of fibers	Cable diameter [mm]	Tube diameter [mm]	Type of optical fiber	Weight [kg/km]
	A-ADSS-UT.02J	2	5	2.8	G.657	30
	A-ADSS-UT.04J	4	5	2.8	G.652D	30
	A-ADSS-UT.08J	8	5	2.8	G.652D	30
	A-ADSS-UT.12J-2	12	5	2.8	G.652D	31
	A-ADSS-UT.12J	12	6.8	3.8	G.652D	35
	A-ADSS-UT.24J	24	6.2	3.4	G.652D	33

Table 1. Fiber optic ADSS TELCOLINE cables 2-24F, unitube, 1.2-1.3kN, G.652D/G.657

Mechanical parameters	IEC standard	2-24F cables, 5 mm	12F cable, 6.8 mm	24F cable, 6.2 mm
Tensile Strength	IEC 794-1-E1	1200N	1300N	1250N
Crush resistance	IEC 794 -1-E3	2000N/100mm		
Impact resistance	IEC 794 -1-E4	20 impacts, 5 Nm		
Repeated bending	IEC 794-1-E6	15 [cycles(15xD)], load 100N		
Torsion resistance	IEC 794-1-E7	10 cycles 180°, 100N		
UV resistance	ISO 4892/2	✓		
Water penetration resistance	IEC 794-1-F5B	✓		
Abrasion resistance	IEC 794-1-E2	✓		
Temperature cycling test	IEC 794-1-F1	2 thermal cycles in the range of -40°C÷70°C		

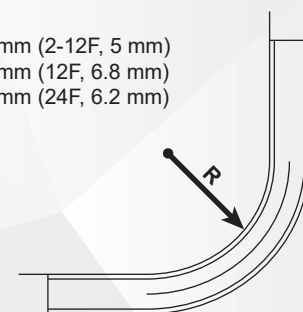
Table 2. Mechanical parameters of fiber optic ADSS TELCOLINE cables 2-24F, unitube, 1.2-1.3kN, G.652D/G.657



- 1 - HDPE jacket
- 2 - Aramid yarns
- 3 - Optical fibers G.652D
- 4 - Tube with optical fibers
- 5 - FRP rod 0.6 mm (x2)
- 6 - Hydrophobic gel

### Minimum bending radius:

- R=50 mm (2-12F, 5 mm)
- R=68 mm (12F, 6.8 mm)
- R=62 mm (24F, 6.2 mm)

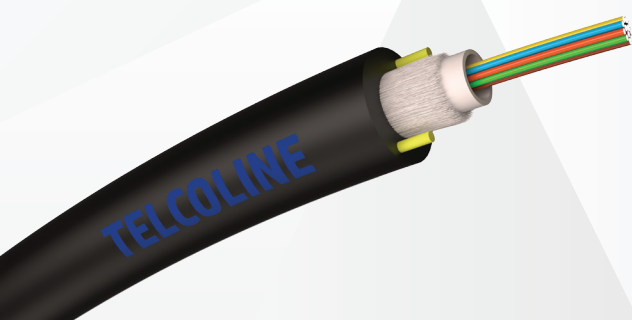


### Structure of cable (example for 8F)



- Aerial installations, span up to 80 m
- Microduct systems

## ✓ Fiber optic unitube cables A-ADSS-UT.02-04J, 1 kN, G.657, span 70 m



- HDPE jacket (black)
- Small diameters
- UV resistant
- Reinforced by glass fibers
- Reinforced by two FRP rods
- Hydrophobic gel in tube
- Optical fibers G.657

Technical data	Product ID	Number of fibers	Cable diameter [mm]	Tube diameter [mm]	Weight [kg/km]
	A-ADSS-UT.04J-S	4	5	2.8	30
	A-ADSS-UT.08J-S	8	5	2.8	30

Table 1. Fiber optic ADSS TELCOLINE cables 4-8F, 1kN, G.657, reinforced by glass fibers

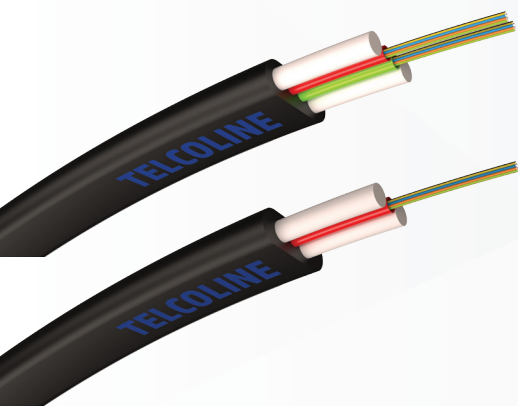
- Tensile strength: 1000N
- Crush resistance: 2000N/100 mm
- Operating temperature: -40°C÷70°C



- Aerial installations, span up to 70 m
- Microduct systems



✔ Fiber optic flat cables A-ADSS.FLA.02-24J, G.652D, 1.2kN, span 60 m



- PE jacket (black)
- Small dimensions
- UV resistant
- Reinforced by two FRP rods
- Hydrophobic gel in tube
- Optical fibers G.652D
- Cable can be bent only in one plane

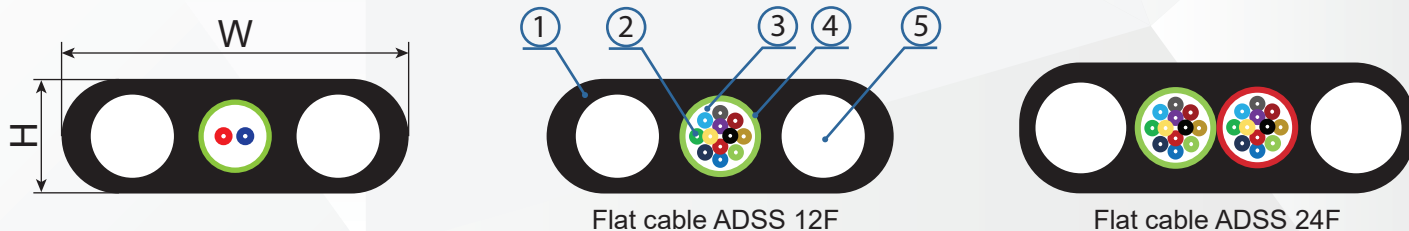
**Applications:**

- Aerial installations, span up to 60 m

- Tensile strength: 1200N
- Crush resistance: 900N/100 mm (2,12F), 1000N/100 mm (24F)
- Operating temperature: -40°C+70°C

Technical data	Product ID	Number of fibers	Number of fiber in tube	Number of tubes	Dimensions WxH [mm]	Weight [kg/km]
	A-ADSS-FLA.02	2	2	1	7.2x4	30
	A-ADSS-FLA.12	12	12	1	7.2x4	32
	A-ADSS-FLA.24	24	12	2	8.4x4	38

Table 1. Fiber optic flat ADSS TELCOLINE cables 2-24F, 1.2kN, G.652D



1 - PE jacket, 2 - Optical fibers G.652D, 3 - Hydrophobic gel, 4 - Tube with fibers, 5 - FRP rod 2 mm (x2)

✔ Fiber optic flat cables E-FTTX 02-04J, G.657, steel/FRP reinforcement, span 50 m



- LSOH jacket (black)
- UV resistant
- Reinforced by two FRP rods 0.4 mm
- Reinforced by steel/FRP rod 1 mm
- Optical fibers G.652D
- Cable can be bent only in one plane

Technical data	Product ID	Number of fibers	Type of reinforcement	Dimensions WxH [mm]	Weight [kg/km]
	E-FTTX-02J	2	Steel rod (1 mm)	5x2	20
	E-FTTX-04J	4	Steel rod (1 mm)	5x2	20
	E-FTTX-2J-FRP	2	FRP rod (1 mm)	5x2	20

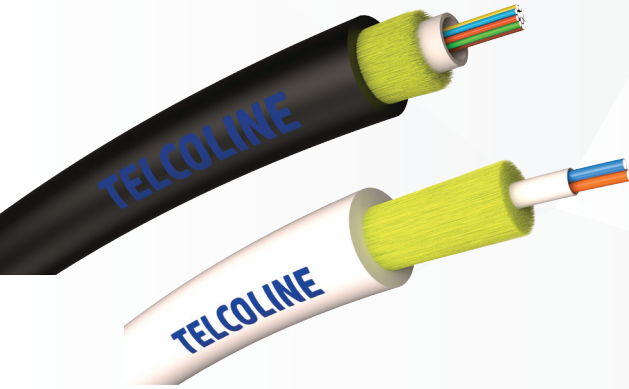
Table 1. Fiber optic flat FTTX TELCOLINE cables 2-4F, G.652D, steel/FRP reinforcement

- Tensile strength: 600N
- Crush resistance: 1000N/100 mm
- Operating temperature: -35°C+65°C



- Aerial installations, span up to 60 m
- Inside the object
- Last mile
- FTTH

✔ Fiber optic microcables E-ADSS-UT.01-24J.HD, heavy duty, 1kN, G.657A2, TPU



- TPU jacket
- Small diameters
- UV resistant
- Hydrophobic gel in tube
- Optical fibers G.657A2
- Reinforced by aramid yarns
- Unitube structure

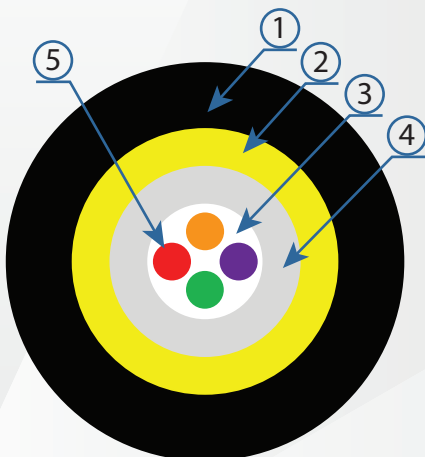
### Applications:

- Aerial installations, span up to 80 m
- FTTH
- Access networks
- Last mile
- Microduct systems

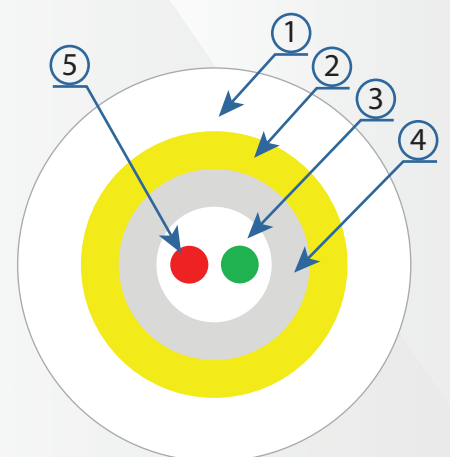
Technical data	Product ID	Number of fibers	Tube diameter [mm]	Cable diameter [mm]	Colour of jacket	Weight [kg/km]
	E-ADSS-UT.01J.HD	1	1	3	Black	9
	E-ADSS-UT.01J.HD-WH	1	1	3	White	9
	E-ADSS-UT.02J.HD	2	1	3	Black	9
	E-ADSS-UT.02J.HD-WH	2	1	3	White	9
	E-ADSS-UT.04J.HD	4	1.2	3.3	Black	10
	E-ADSS-UT.06J.HD	6	1.2	3.3	Black	10
	E-ADSS-UT.08J.HD	8	1.6	3.6	Black	12
	E-ADSS-UT.12J.HD	12	1.6	3.6	Black	12
	E-ADSS-UT.16J.HD	16	2	3.9	Black	14
E-ADSS-UT.24J.HD	24	2.4	4.1	Black	16	

Table 1. Fiber optic microADSS TELCOLINE cables 1-24F, heavy duty, 1kN, G.657A2, TPU

- Tensile strength: 1000N (short-term), 500N (long-term)
- Crush resistance: 500N/100 mm
- Operating temperature: -30°C+70°C



Structure of cable (example for 4F, black)



Structure of cable (example for 2F, white)



✔ Fiber optic microcables E-ADSS-UT.01-24J, LSOH, G.657A2



- ▶ LSOH jacket
- ▶ Unitube structure
- ▶ Small diameters
- ▶ UV, water resistant
- ▶ Reinforced by aramid yarns
- ▶ Hydrophobic gel in tube
- ▶ Optical fibers G.657A2

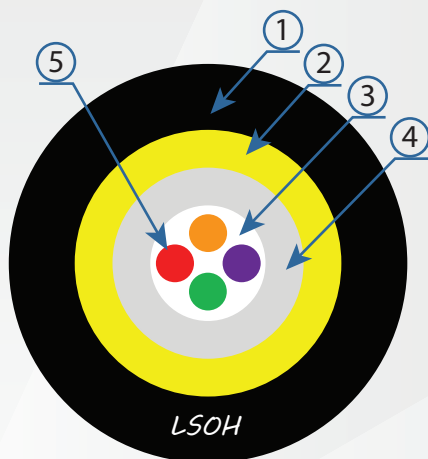
### Applications:

- ▶ FTTH   ▶ Access networks   ▶ Last mile   ▶ Microduct systems   ▶ Aerial installations (span up to 40 m)

Technical data	Product ID	Number of fibers	Cable diameter [mm]	Tube diameter [mm]	Colour of jacket	Weight [kg/km]
	E-ADSS-UT.01J	1	1	3	Black	9
	E-ADSS-UT.01J-WH	1	1	3	White	9
	E-ADSS-UT.02J	2	1	3	Black	9
	E-ADSS-UT.02J-WH	2	1	3	White	9
	E-ADSS-UT.04J	4	1.2	3.3	Black	10
	E-ADSS-UT.08J	8	1.6	3.6	Black	12
	E-ADSS-UT.12J	12	1.6	3.6	Black	12
	E-ADSS-UT.16J	16	2	3.9	Black	14
	E-ADSS-UT.24J	24	2.2	4.1	Black	16

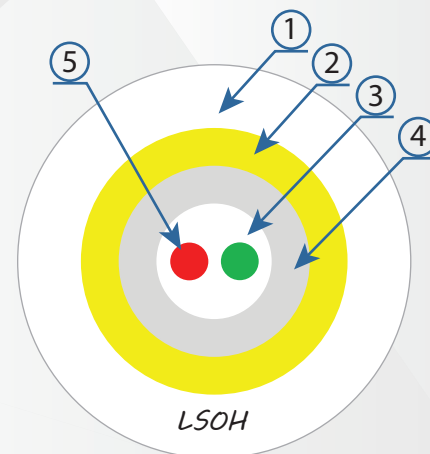
Table 1. Fiber optic microADSS TELCOLINE cables 1-24F, LSOH, G.657A2

- ▶ Tensile strength: 1000N (short-term)/500N (long-term) for 1-16F; 1100N/550N for 24F
- ▶ Crush resistance: 1000N/100 mm
- ▶ Operating temperature: -40°C+70°C

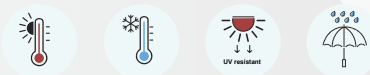


- 1 - LSOH jacket (black/white)
- 2 - Aramid yarns
- 3 - Hydrophobic gel
- 4 - Tube with optical fibers
- 5 - Optical fibers G.657A2

Structure of cable 1-24F (example for 4F, black)



Structure of cable 1-2F (example for 2F, white)





✔ Fiber optic microcables E-ADSS-UT.01-24J, LSOH-STONG, G.657A2



STRONG



- ▶ LSOH jacket (black)
- ▶ Unitube structure
- ▶ Small diameters
- ▶ UV, water resistant
- ▶ Reinforced by aramid yarns
- ▶ Hydrophobic gel in tube
- ▶ Optical fibers G.657A2

### Applications:

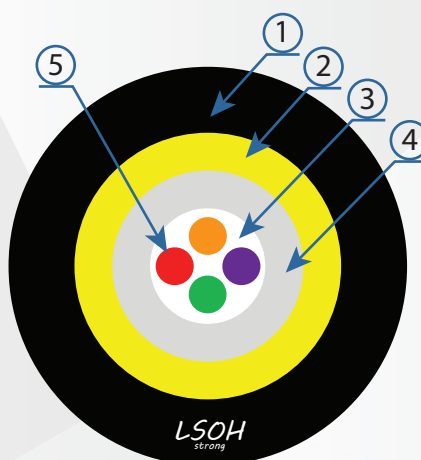
- ▶ FTTH
- ▶ Access networks
- ▶ Last mile
- ▶ Microduct systems
- ▶ Aerial installations (span up to 60 m)

Technical data	Product ID	Number of fibers	Tube diameter [mm]	Cable diameter [mm]	Weight [kg/km]
	E-ADSS-UT.01J-BL-ST	1	1	3.5	10
	E-ADSS-UT.02J-BL-ST	2	1	3.5	10
	E-ADSS-UT.04J-BL-ST	4	1.2	3.5	11
	E-ADSS-UT.08J-BL-ST	8	1.6	3.7	12.5
	E-ADSS-UT.12J-BL-ST	12	1.8	3.9	13
	E-ADSS-UT.24J-BL-ST	24	2	4.0	14

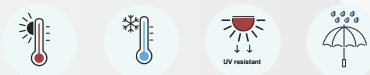
Table 1. Fiber optic microADSS TELCOLINE cables 1-24F, LSOH-STRONG, G.657A2

- ▶ Tensile strength: 1200N (short-term), 600N (long-term)
- ▶ Crush resistance: 1000N/100 mm
- ▶ Operating temperature: -40°C÷70°C

### Structure of cable 1-24F (example for 4F, black)



- 1 - LSOH jacket (black), 2 - Aramid yarns, 3 - Hydrophobic gel, 4 - Tube with optical fibers, 5 - Optical fibers G.657A2



## 2. Fiber optic duct cables

### ✔ Fiber optic multitube duct cables A-DT.MT.24-144J, 1.5-2kN, G.652D



- HDPE jacket (black)
- Multitube structure
- UV, water resistant
- Resistance to chemical agents
- Resistance to substances occurring in duct systems
- Reinforced by glass fibers
- Reinforced by two FRP rods
- Hydrophobic gel in tube
- Optical fibers G.652D
- Ripcords

#### Applications:

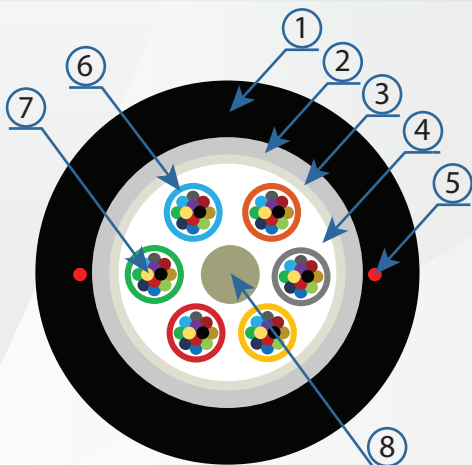
- Duct systems
- Distribution networks
- Campus networks

Technical data	Product ID	Number of fibers	Number of fibers in tube	Number of tubes/fillers	Cable diameter [mm]	Weight [kg/km]
	A-DT.MT-24J.1.5KN-12F	24	12	2/4	8	52
	A-DT.MT-48J.1.5KN-12F	48	12	4/2	8	55
	A-DT.MT-72J.1.5KN-12F	72	12	6/0	8	57
	A-DT.MT-96J.1.5KN-12F	96	12	8/0	9.2	65
	A-DT.MT-144J.1.5KN-12F	144	12	12/0	11.5	90

Table 1. Fiber optic duct TELCOLINE cables 24-144F, multitube, 1.5kN, G.652D

Technical data	Product ID	Number of fibers	Number of fibers in tube	Number of tubes/fillers	Cable diameter [mm]	Weight [kg/km]
	A-DT.MT-24J.2KN-12F	24	12	2/4	9.5	70
	A-DT.MT-48J.2KN-12F	48	12	4/2	9.5	70
	A-DT.MT-72J.2KN-12F	72	12	6/0	10.5	85
	A-DT.MT-96J.2KN-12F	96	12	8/0	11.5	115
	A-DT.MT-144J.2KN-12F	144	12	12/0	14	140

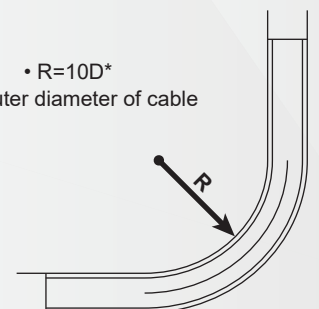
Table 2. Fiber optic duct TELCOLINE cables 24-144F, multitube, 2kN, G.652D



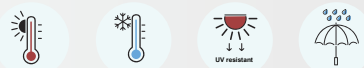
- 1 - HDPE jacket (black)
- 2 - Fiberglass
- 3 - Waterproof tape
- 4 - Hydrophobic gel
- 5 - Ripcords (x2)
- 6 - Tube with optical fibers
- 7 - Optical fibers G.652D
- 8 - Central FRP rod

#### Minimum bending radius:

• R=10D\*  
\*D - outer diameter of cable



#### Structure of cable (example for 72F)



Mechanical parameters	IEC standard	1.5kN cables	2kN cables
Tensile Strength	IEC 794-1-E1	1500	2000
Crush resistance	IEC 794 -1-E3	2000N/100mm	
Impact resistance	IEC 794 -1-E4	20 impacts, 10 Nm	
Repeated bending	IEC 794-1-E6	20 [cycles(15xD)], load 150N	
Torsion resistance	IEC 794-1-E7	10 cycles 180°, load 120N	
UV resistance	ISO 4892/2	✓	
Water penetration resistance	IEC 794-1-F5B	✓	
Abrasion resistance	IEC 794-1-E2	✓	
Temperature cycling test	IEC 794-1-F1	2 thermal cycles in the range of -40°C÷70°C	

Table 2. Mechanical parameters of fiber optic duct TELCOLINE cables 24-144F, multitube, 1.5-2kN, G.652D

### ✓ Fiber optic unitube duct cables A-DT-UT.02-24J, 1-1.2kN, G.652D/G.657



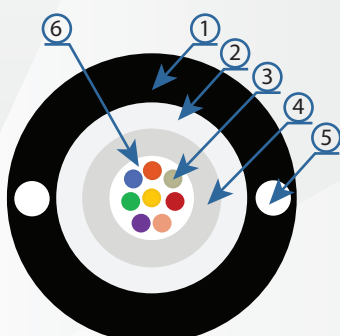
- HDPE jacket (black)
- Unitube structure
- UV, water resistant
- Resistance to chemical agents
- Resistance to substances occurring in duct systems
- Reinforced by glass fibers
- Reinforced by two FRP rods
- Hydrophobic gel in tube
- Optical fibers G.652D/G.657

#### Applications:

- Duct systems
- Distribution networks
- Campus networks

	Product ID	Number of fibers	Cable diameter [mm]	Tube diameter [mm]	Type of optic fiber	Weight [kg/km]
Technical data	A-DT-UT.02J	2	5	2.8	G.657	29
	A-DT-UT.04J	4	5	2.8	G.652D	30
	A-DT-UT.08J	8	5	2.8	G.652D	30
	A-DT-UT.12J-2	12	5	2.8	G.652D	31
	A-DT-UT.12J	12	6.8	3.8	G.652D	35
	A-DT-UT.24J	24	6.2	3.4	G.652D	33

Table 1. Fiber optic duct TELCOLINE cables 2-24F, unitube, 1-1.2kN, G.652D/G.657

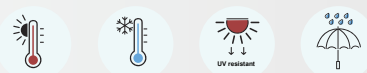
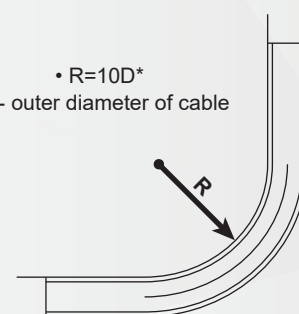


Structure of cable (example for 8F)

- 1 - HDPE jacket (black)
- 2 - Fiberglass
- 3 - Optical fibers G.652D/G.657
- 4 - Tube with optical fibers
- 5 - FRP rod 0.6 mm (x2)
- 6 - Hydrophobic gel

#### Minimum bending radius:

• R=10D\*  
\*D - outer diameter of cable



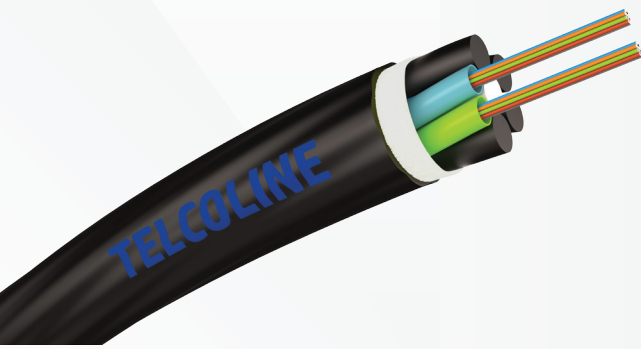
## 2. Fiber optic duct cables

Mechanical parameters	IEC standard	Cables 2-12F, 5 mm	Cable 12F, 6.8 mm	Cable 24F, 6.2 mm
Tensile Strength	IEC 794-1-E1	1000N	1200N	1100N
Crush resistance	IEC 794 -1-E3	2000N/100mm		
Impact resistance	IEC 794 -1-E4	10 impacts, 5 Nm		
Repeated Bending	IEC 794-1-E6	10 [cycles(15xD)], load 100 N		
Torsion resistance	IEC 794-1-E7	10 cycles, twist angle 180°, load 100 N		
Water penetration resistance	IEC 794-1-F5B	✓		
Abrasion resistance	IEC 794-1-E2	✓		
Temperature Cycling Test	IEC 794-1-F1	2 thermal cycles in the range of -40°C+70°C		

Table 2. Mechanical parameters of fiber optic duct TELCOLINE cables 2-24F, unitube, 1-1.2kN, G.652D/G.657

## 3. Fiber optic microduct cables

### ✓ Fiber optic multitube microduct cables A-MICRO-MT.24-144J, G.652D



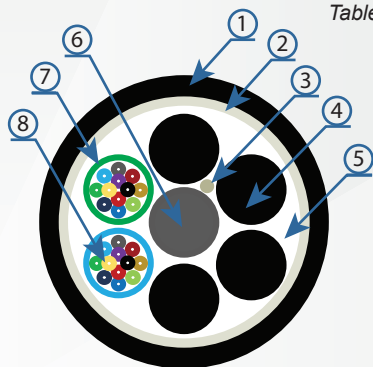
- HDPE jacket (black)
- Multitube structure
- Small diameters
- UV, water resistant
- Resistance to chemical agents
- Resistance to substances occurring in duct systems
- Reinforced by glass fibers
- Reinforced by two FRP rods
- Hydrophobic gel in tube
- Optical fibers G.652D

#### Applications:

- Microduct systems
- Outdoor installation
- Indoor installation (in LSOH micropipes)
- Blowing installation

Technical data	Product ID	Number of fibers	Number of fibers in tube	Number of tubes/fillers	Cable diameter [mm]	Weight [kg/km]
	A-MICRO-MT.24J-4F	24	4	6/0	5.8	25
	A-MICRO-MT.24J-12F	24	12	2/4	5.8	25
	A-MICRO-MT.48J-12F	48	12	4/2	5.8	25
	A-MICRO-MT.72J-12F	72	12	6/0	5.8	25
	A-MICRO-MT.96J	96	12	8/0	6.6	40
	A-MICRO-MT.144J	144	24	6/0	6.6	60

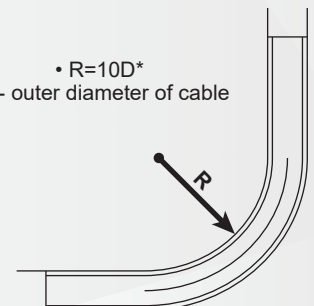
Table 1. Fiber optic microduct TELCOLINE cables 24-144F, multitube, G.652D



- 1 - HDPE jacket (black)
- 2 - Fiberglass
- 3 - Water absorbing fiber
- 4 - Filler
- 5 - Hydrophobic gel
- 6 - Central FRP rod
- 7 - Tube with optical fibers
- 8 - Optical fibers G.652D

#### Minimum bending radius:

•  $R=10D^*$   
 \*D - outer diameter of cable



Structure of cable (example for 24F-12F/T)



Mechanical parameters	IEC standard	24-72F cables	96-144F cables
Tensile Strength	IEC 794-1-E1	500N	1000N
Crush resistance	IEC 794 -1-E3	1000N/100mm	
Impact resistance	IEC 794 -1-E4	20 impacts, 7 Nm	
Repeated bending	IEC 794-1-E6	15 [cycles(10xD)]	
Torsion resistance	IEC 794-1-E7	10 cycles 180°, load 80N	10 cycles 180°, load 120N
UV resistance	ISO 4892/2	✓	
Water penetration resistance	IEC 794-1-F5B	✓	
Abrasion resistance	IEC 794-1-E2	✓	
Temperature cycling test	IEC 794-1-F1	2 thermal cycles in the range of -40°C+70°C	

Table 2. Mechanical parameters of fiber optic microduct TELCOLINE cables 24-144F, unitube, G.652D

## ✓ Fiber optic unitube microduct cables A-MICRO-UT.02-24J, G.657/G.652D



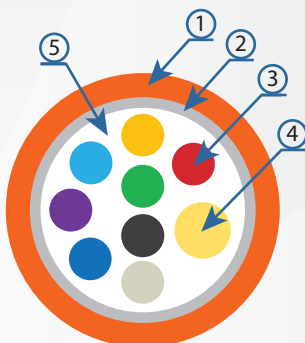
- HDPE jacket (orange)
- Small reduced diameters
- Unitube structure
- UV, water resistant
- Resistance to chemical agents
- Resistance to substances occurring in duct systems
- Reinforced by ARP rod
- Hydrophobic gel in tube
- Optical fibers G.652D

### Applications:

- Microduct systems
- Outdoor installation
- Indoor installation (in LSOH micropipes)
- Blowing installation

	Product ID	Number of fibers	Cable diameter [mm]	Type of fiber	Weight [kg/km]
Technical data	A-MICRO-UT.02J	2	1.6	G.657	5
	A-MICRO-UT.04J	4	1.9	G.657	5.5
	A-MICRO-UT.08J	8	2.2	G.657	6.5
	A-MICRO-UT.12J	12	2.5	G.657	31
	A-MICRO-UT.24J	24	3.4	G.652D	35

Table 1. Fiber optic microduct TELCOLINE 2-24F cables, unitube, G.657/G.652D



- Tensile strength: 200N for 2-8F, 250N for 12F, 300N for 24F
- Crush resistance: 500N/100 mm
- Operating temperature: -35°C+65°C

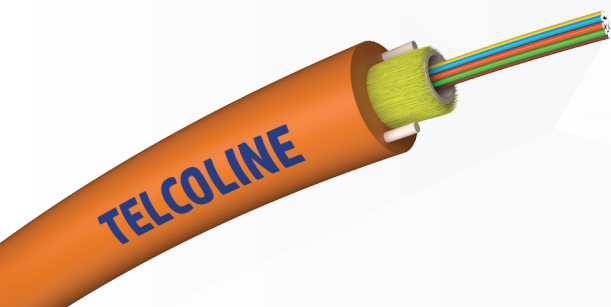
- 1 - HDPE jacket (orange)
- 2 - Central tube
- 3 - Optical fibers G.657/G.652D
- 4 - ARP rod
- 5 - Hydrophobic gel

### Structure of cable (example for 8F)





## ✔ Fiber optic cables A-DAC-02-24J, G.652D/G.657



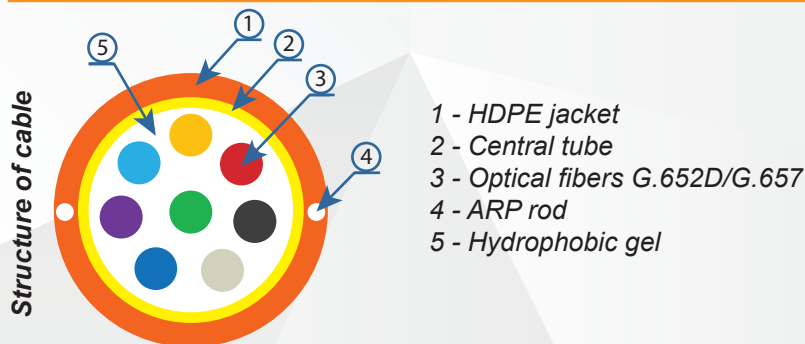
- HDPE jacket (orange)
- Unitube structure
- UV, water resistant
- Resistance to acids, alcohols, gasoline
- Resistance to salt solutions, lyes
- Reinforced by aramid yarns
- Reinforced by two FRP rods
- Hydrophobic gel in tube
- Optical fibers G.652D/G.657
- High crush resistance

### Applications:

- Designed for direct access in the ground
- Outdoor installation
- Duct installation

	Product ID	Number of fibers	Cable diameter [mm]	Type of fiber	Weight [kg/km]
Technical data	A-DAC-02J	2	6.3	G.657	30
	A-DAC-04J	4	6.3	G.652D	30
	A-DAC-08J	8	6.3	G.652D	30
	A-DAC-12J	12	6.3	G.652D	30
	A-DAC-24J	24	6.3	G.652D	30

Table 1. Fiber optic DAC TELCOLINE cables 2-24F, unitube, 4kN, G.652D/G.657



Mechanical parameters	IEC standard	2-24F DAC cables
Tensile Strength	IEC 794-1-E1	1200N
Crush resistance	IEC 794 -1-E3	4000N/100mm
Impact resistance	IEC 794 -1-E4	20 impacts, 12 Nm
Repeated bending	IEC 794-1-E6	20 [cycles(15xD)]
Torsion resistance	IEC 794-1-E7	10 cycles 180°, load 120N
UV resistance	ISO 4892/2	✔
Water penetration resistance	IEC 794-1-F5B	✔
Abrasion resistance	IEC 794-1-E2	✔
Temperature cycling test	IEC 794-1-F1	2 thermal cycles in the range of -40°C+70°C

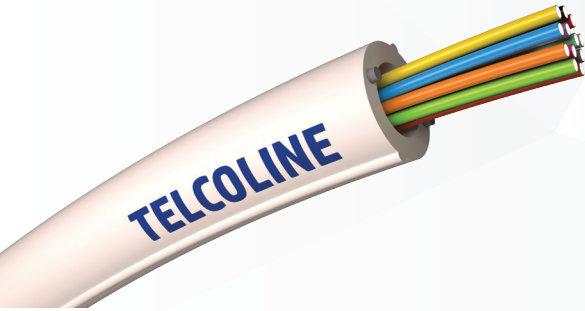
Table 2. Mechanical parameters of fiber optic DAC TELCOLINE cables 2-24F, unitube, 4kN, G.652D/G.657

\*Installation temperature +4[°C]...+35[°C]





## ✔ Fiber optic Easy Access cables E-EA-12-36J, LSOH, G.657A2



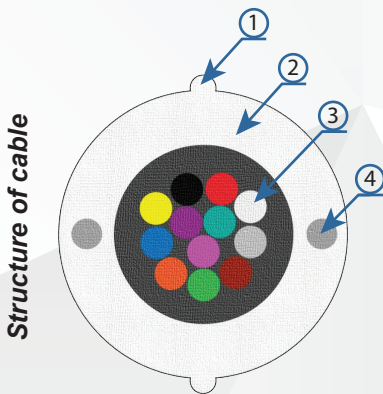
- ▶ LSOH jacket (white)
- ▶ UV, resistant
- ▶ Reinforced by two FRP rods
- ▶ Optical fibers G.657A2
- ▶ Window cut maker
- ▶ The ability to pull out fibers up to 15 meters

### Applications:

- ▶ Indoor installations
- ▶ Multifamily and office buildings
- ▶ Vertical assembly

Technical data	Product ID	Number of fibers	Cable diameter [mm]	Type of fiber	Weight [kg/km]
	E-EA-12J	12	8.5	G.657A2	60
	E-EA-16J	16	10.5	G.657A2	90
	E-EA-24J	24	10.5	G.657A2	90
	E-EA-36J	36	11.5	G.657A2	120

Table 1. Fiber optic Easy Access TELCOLINE cables 12-36F, G.657A2



- 1 - Window cut maker
- 2 - LSOH jacket (white)
- 3 - Optical fibers G.657A2
- 4 - FRP rod (x2)



Mechanical parameters	IEC standard	12F	16F	24F	36F
Tensile Strength	IEC 794-1-E1	300N	500N		700N
Crush resistance	IEC 794 -1-E3	500N/100mm			
Repeated bending	IEC 794-1-E6	15 [cycles(15xD)]			
UV resistance	ISO 4892/2	✔			
Abrasion resistance	IEC 794-1-E2	✔			
Temperature cycling test	IEC 794-1-F1	2 thermal cycles in the range of -40°C+70°C			

Table 2. Mechanical parameters of fiber optic Easy Access TELCOLINE cables 12-36F, G.657A2



✔ Fiber optic microcables E-ADSS-UT.01-24J, LSOH, G.657A2



- ▶ LSOH jacket
- ▶ Unitube structure
- ▶ Small diameters
- ▶ UV, water resistant
- ▶ Reinforced by aramid yarns
- ▶ Hydrophobic gel in tube
- ▶ Optical fibers G.657A2

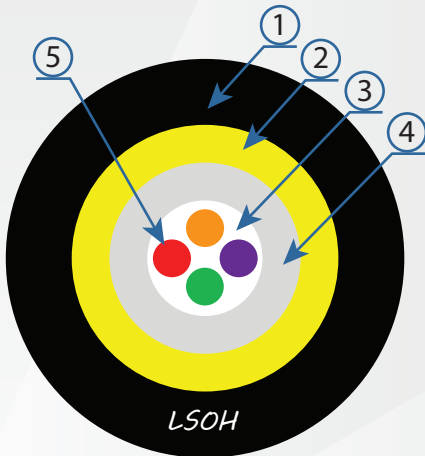
### Applications:

- ▶ FTTH
- ▶ Access networks
- ▶ Last mile
- ▶ Microduct systems
- ▶ Aerial installations (span up to 40 m)

Technical data	Product ID	Number of fibers	Cable diameter [mm]	Tube diameter [mm]	Colour of jacket	Weight [kg/km]
	E-ADSS-UT.01J	1	1	3	Black	9
	E-ADSS-UT.01J-WH	1	1	3	White	9
	E-ADSS-UT.02J	2	1	3	Black	9
	E-ADSS-UT.02J-WH	2	1	3	White	9
	E-ADSS-UT.04J	4	1.2	3.3	Black	10
	E-ADSS-UT.08J	8	1.6	3.6	Black	12
	E-ADSS-UT.12J	12	1.6	3.6	Black	12
	E-ADSS-UT.16J	16	2	3.9	Black	14
	E-ADSS-UT.24J	24	2.2	4.1	Black	16

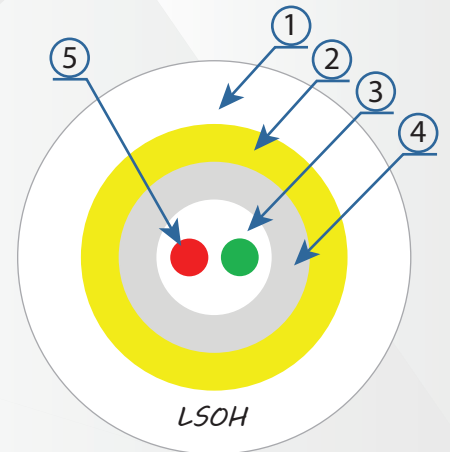
Table 1. Fiber optic microADSS TELCOLINE cables 1-24F, LSOH, G.657A2

- ▶ Tensile strength: 1000N (short-term)/500N (long-term) for 1-16F; 1100N/550N for 24F
- ▶ Crush resistance: 1000N/100 mm
- ▶ Operating temperature: -40°C+70°C



- 1 - LSOH jacket (black/white)
- 2 - Aramid yarns
- 3 - Hydrophobic gel
- 4 - Tube with optical fibers
- 5 - Optical fibers G.657A2

Structure of cable 1-24F (example for 4F, black)



Structure of cable 1-2F (example for 2F, white)



✔ Fiber optic microcables E-ADSS-UT.01-24J, LSOH-STONG, G.657A2



STRONG



- ▶ LSOH jacket
- ▶ Unitube structure
- ▶ Small diameters
- ▶ UV, water resistant
- ▶ Reinforced by aramid yarns
- ▶ Hydrophobic gel in tube
- ▶ Optical fibers G.657A2

### Applications:

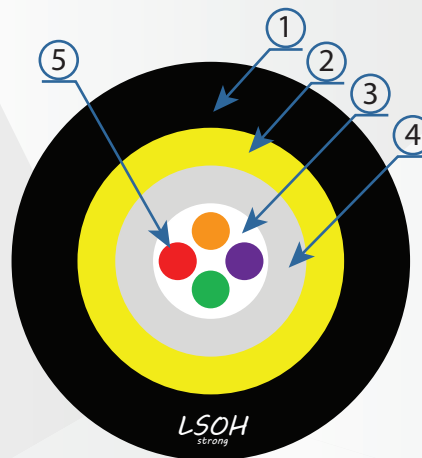
- ▶ FTTH
- ▶ Access networks
- ▶ Last mile
- ▶ Microduct systems
- ▶ Aerial installations (span up to 60 m)

	Product ID	Number of fibers	Tube diameter [mm]	Cable diameter [mm]	Weight [kg/km]
Technical data	E-ADSS-UT.01J-BL-ST	1	1	3.5	10
	E-ADSS-UT.02J-BL-ST	2	1	3.5	10
	E-ADSS-UT.04J-BL-ST	4	1.2	3.5	11
	E-ADSS-UT.08J-BL-ST	8	1.6	3.7	12.5
	E-ADSS-UT.12J-BL-ST	12	1.8	3.9	13
	E-ADSS-UT.24J-BL-ST	24	2	4.0	14

Table 1. Fiber optic microADSS TELCOLINE cables 1-24F, LSOH-STRONG, G.657A2

- ▶ Tensile strength: 1200N (short-term), 600N (long-term)
- ▶ Crush resistance: 1000N/100 mm
- ▶ Operating temperature: -40°C+70°C

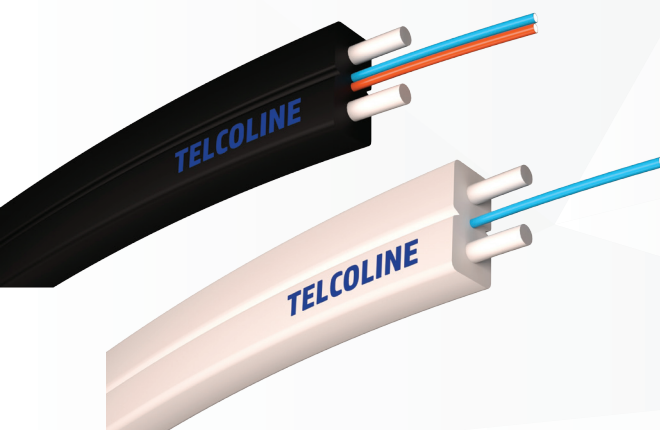
### Structure of cable 1-24F (example for 4F, black)



- 1 - LSOH jacket (black), 2 - Aramid yarns, 3 - Hydrophobic gel, 4 - Tube with optical fibers, 5 - Optical fibers G.657A2



✔ Fiber optic flat cables E-FTTH-01-04J, LSOH, G.657



- ▶ LSOH jacket
- ▶ Small dimensions
- ▶ UV resistant
- ▶ Reinforced by ARP rods
- ▶ Optical fibers G.657

### Applications:

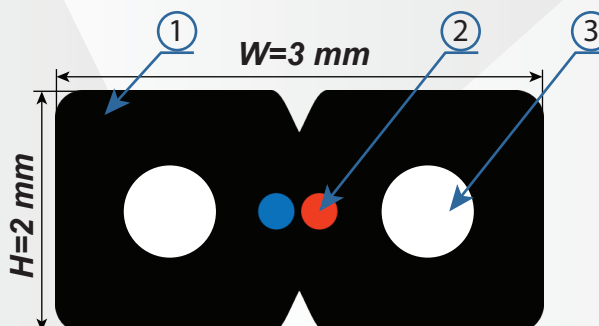
- ▶ FTTH
- ▶ Indoor installations
- ▶ Last mile

Technical data	Product ID	Number of fibers	Colour of jacket	Dimensions WxH [mm]	Weight [kg/km]
	E-FTTH-01J-BL	1	Black	3x2	10
	E-FTTH-02J-BL	2	Black	3x2	10
	E-FTTH-04J-BL	4	Black	3x2	11
	E-FTTH-01J-WH	1	White	3x2	10
	E-FTTH-02J-WH	2	White	3x2	10
	E-FTTH-04J-WH	4	White	3x2	11

Table 1. Fiber optic flat FTTH TELCOLINE cables 1-4F, LSOH, G.657

- ▶ Tensile strength: 200N (short-term), 100N (long-term)
- ▶ Crush resistance: 2000N/100 mm
- ▶ Operating temperature: -30°C÷70°C

### Structure of cable 1-4F (example for 2F, black)

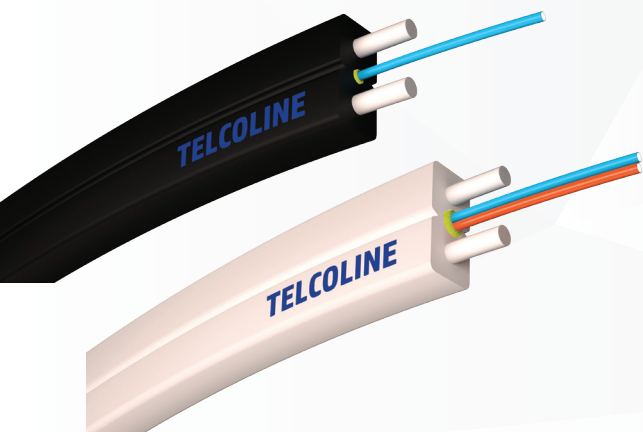


1 - LSOH jacket (black/white), 2 - Optical fibers G.657, 3 - ARP rod (x2)





✔ Fiber optic flat cables E-FTTH-01-04J, LSOH, G.657, aramid yarns



- ▶ LSOH jacket
- ▶ Small dimensions
- ▶ UV resistant
- ▶ Reinforced by aramid yarns
- ▶ Reinforced by ARP rods
- ▶ Optical fibers G.657

### Applications:

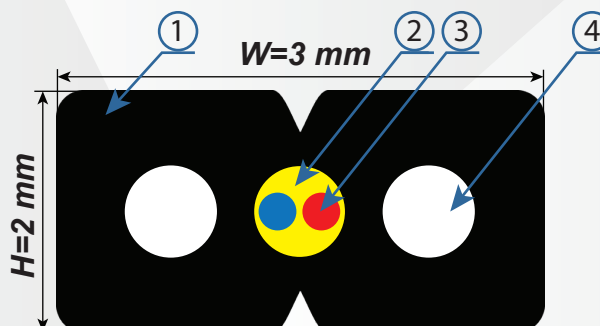
- ▶ FTTH
- ▶ Indoor installations
- ▶ Last mile

Technical data	Product ID	Number of fibers	Colour of jacket	Dimensions WxH [mm]	Weight [kg/km]
	E-FTTH-01J-A-BL	1	Black	3x2	10
	E-FTTH-02J-A-BL	2	Black	3x2	10
	E-FTTH-04J-A-BL	4	Black	3x2	11
	E-FTTH-01J-A-WH	1	White	3x2	10
	E-FTTH-02J-A-WH	2	White	3x2	10
	E-FTTH-04J-A-WH	4	White	3x2	11

Table 1. Fiber optic flat FTTH TELCOLINE cables 1-4F, LSOH, aramid yarns, G.657

- ▶ Tensile strength: 300N (short-term), 200N (long-term)
- ▶ Crush resistance: 2000N/100 mm
- ▶ Operating temperature: -30°C÷70°C

### Structure of cable 1-4F (example for 2F, black)



1 - LSOH jacket (black/white), 2- Aramid yarns, 3 - Optical fibers G.657, 4 - ARP rod (x2)



✔ Fiber optic transparent cable E-FTTH-01-B3, G.657B3, 0.9 mm



- ▶ Transparent jacket (Nylon 12)
- ▶ Diameter 0.9 mm
- ▶ Minimum bending radius: 2.5 mm
- ▶ High impact resistance
- ▶ Excellent abrasion resistance
- ▶ Weatherproof
- ▶ Optical fiber G.657B3

### Applications:

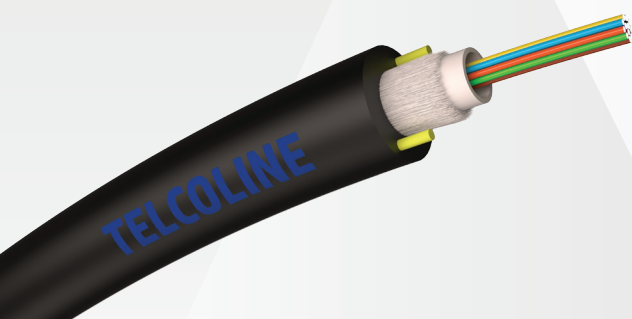
- ▶ Offices
- ▶ Flats
- ▶ FTTH

Mechanical parameters	IEC standard	1F transparent cable
Tensile Strength	IEC 794-1-E1	60N
Crush resistance	IEC 794 -1-E3	200N/100mm
Impact resistance	IEC 794 -1-E4	10 impacts, 22 Nm
Repeated bending	IEC 794-1-E6	6 [cycles(15xD)]
Torsion resistance	IEC 794-1-E7	5 cycles 180°, load 50N
Water penetration resistance	IEC 794-1-F5B	✔
Abrasion resistance	IEC 794-1-E2	✔
Temperature cycling test	IEC 794-1-F1	2 thermal cycles in the range of -40°C÷70°C

Table 1. Mechanical parameters of fiber optic transparent FTTH TELCOLINE cable 1F, G.657B3

## 6. Fiber optic universal cables

✔ Fiber optic universal cables A-UN-UT.02-24J, 1-1.2 kN, unitube, G.652D/G.657



- ▶ HDPE jacket (black)
- ▶ Unitube structure
- ▶ Small diameters
- ▶ UV, water resistant
- ▶ Reinforced by glass fibers
- ▶ Reinforced by two FRP rods
- ▶ Hydrophobic gel in tube
- ▶ Optical fibers G.652D/G.657

### Applications:

- ▶ Aerial installations (span up to 60 m)
- ▶ Duct/microduct systems



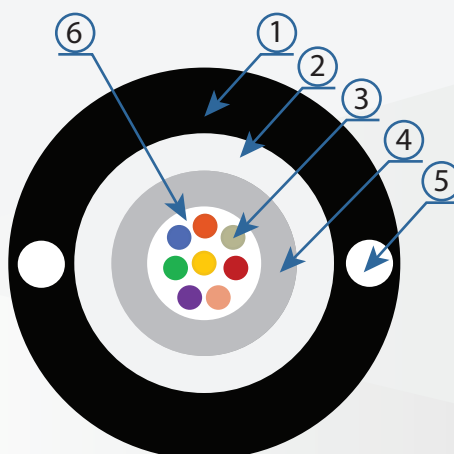
Technical data	Product ID	Number of fibers	Cable diameter [mm]	Tube diameter [mm]	Type of fiber	Weight [kg/km]
	A-UN-UT.04J	4	5	2.8	G.652D	23
	A-UN-UT.08J	8	5	2.8	G.652D	23
	A-UN-UT.12J-2	12	5	2.8	G.652D	23
	A-UN-UT.12J	12	6.8	3.8	G.652D	29
	A-UN-UT.24J	24	6.2	3.4	G.652D	27

Table 1. Fiber optic universal TELCOLINE cables 4-24F, unitube, 1-1.2kN, G.652D

Technical data	Product ID	Number of fibers	Cable diameter [mm]	Tube diameter [mm]	Type of fiber	Weight [kg/km]
	A-UN-UT.02J	4	5	2.8	G.657	23
	A-UN-UT.04J-S	8	5	2.8	G.657	23
	A-UN-UT.08J-S	12	5	2.8	G.657	23

Table 2. Fiber optic universal TELCOLINE cables 2-12F, unitube, 1kN, G.657

### Structure of cable 2-24F (example for 8F)



1 - HDPE jacket (black), 2 - Fiberglass, 3 - Optical fibers G.652D/G.657, 4 - Tube with optical fibers, 5 - FRP rod 0.6 mm (x2), 6 - Hydrophobic gel in tube

Mechanical parameters	IEC standard	Cables 2-12F, 5 mm	Cable 12F, 6.8 mm	Cable 24F, 6.2 mm
Tensile Strength	IEC 794-1-E1	1000N	1200N	1100N
Crush resistance	IEC 794 -1-E3	2000N/100mm		
Impact resistance	IEC 794 -1-E4	10 impacts, 5 Nm		
Repeated Bending	IEC 794-1-E6	10 [cycles(15xD)], load 100 N		
Torsion resistance	IEC 794-1-E7	10 cycles, twist angle 180°, load 100 N		
UV resistance	ISO 4892/2	✓		
Water penetration resistance	IEC 794-1-F5B	✓		
Abrasion resistance	IEC 794-1-E2	✓		
Temperature Cycling Test	IEC 794-1-F1	2 thermal cycles in the range of -40°C+70°C		

Table 3. Mechanical parameters of fiber optic universal TELCOLINE cables 2-24F, G.652D/G.657



# 7. Fiber optic MultiMode cables

✔ Fiber optic multimode cables E-OM3.02-12G, LSOH, OM3



- LSOH jacket
- Small diameters
- UV resistant
- Hydrophobic gel in tube
- Optical fibers OM3
- Reinforced by glass fibers
- Unitube structure

### Applications:

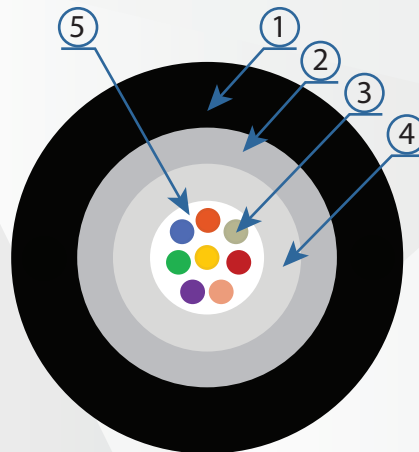
- Indoor installations
- Duct/microduct systems
- CATV
- FTTx

	Product ID	Number of fibers	Cable diameter [mm]	Tube diameter [mm]	Type of fiber	Weight [kg/km]
Technical data	E-OM3-02G	2	6	2.4	OM3	40
	E-OM3-04G	4	6	2.4	OM3	40
	E-OM3-08G	8	6	2.4	OM3	40
	E-OM3-12G	12	6	2.4	OM3	40

Table 1. Fiber optic multimode TELCOLINE cables 2-12G, unitube, 1kN, OM3

- Tensile strength: 1000N
- Crush resistance: 1500N/100 mm
- Operating temperature: -35°C+65°C

### Structure of cable OM3 (example for OM3-8G)



1 - LSOH jacket, 2 - Fiberglass, 3 - Optical fibers OM3, 4 - Tube with optical fibers, 5 - Hydrophobic gel in tube

