



# Microduct Assembly 7/3.5 mm

TWD 7/3.5 mm 1-24 -way S12

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## Features

- For direct burial
- 1, 2, 4, 7, 12, 19 or 24 bundled ducts
- 7/3.5 mm microducts
- Low friction inner surface

## Application

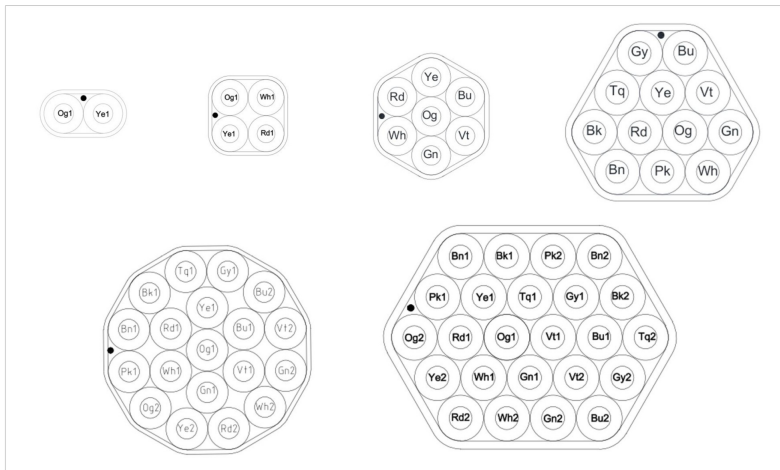
The thick walled microduct bundles consist of a number of microducts with an inner low friction surface that enables installation of air-blown fiber units or nano cables. The thick inner wall of the microducts allow for installation directly into the ground without the need for additional protection.

## Design

The duct assemblies are available in several configurations from 1 to 24 microducts.

7/3.5 mm microducts are optimized for installation of air-blown fibers and nano cables. The microducts have a solid low-friction inner surface for best blowing performance.

## Product Information



Microducts and outer sheath: HDPE

## Technical Information

<b>Color Code</b>	S12
<b>Temperature, Operation [°C]</b>	-40 to +60
<b>Temperature, Storage [°C]</b>	-40 to +60

**Temperature, Installation [°C]**

-20 to +50

**Conformance**

- Abrasion:** IEC 60794-1-2-E2B(1)
- Kink:** IEC 60794-1-2-E10, 20 x outer diameter
- Impact:** IEC 60794-1-2-E4
- Crush:** IEC 60794-1-2-E3
- Tensile:** IEC 60794-1-2-E
- Bend:** IEC 60794-1-2-E11A
- Torsion:** IEC 60794-1-2-E
- Flexibility:** IEC 60794-1-2-E8
- Inner Clearance:** IEC 60794-5-20, IEC 60794-5-10, Ann. D

**Marking**

Duct assemblies have markings showing the type and tube length. The individual microducts are identified by their colors.

12 different colors are used according to the S12 standard. For duct assemblies with >12 ducts, the first 12 colored ducts are marked with "1" and the following ducts are marked with "2".

The assemblies are available in various sheath colors for easy identification.

**Technical Details**

S12 Mikrorör 1-12 Microducts 1-12	1	2	3	4	5	6	7	8	9	10	11	12	
	Orange	Gul Yellow	Röd Red	Vit White	Grön Green	Violett Violet	Blå Blue	Grå Grey	Turkos Turquoise	Svart Black	Brun Brown	Rosa Pink	
	S12 Mikrorör 1-24 Microducts 1-24	1	2	3	4	5	6	7	8	9	10	11	12
		Orange 1	Gul 1 Yellow 1	Röd 1 Red 1	Vit 1 White 1	Grön 1 Green 1	Violett 1 Violet 1	Blå 1 Blue 2	Grå 1 Grey 1	Turkos 1 Turquoise 1	Svart 1 Black 1	Brun 1 Brown 1	Rosa 1 Pink 1
		13	14	15	16	17	18	19	20	21	22	23	24
		Orange 2	Gul 2 Yellow 2	Röd 2 Red 2	Vit 2 White 2	Grön 2 Green 2	Violett 2 Violet 2	Blå 2 Blue 2	Grå 2 Grey 2	Turkos 2 Turquoise 2	Svart 2 Black 2	Brun 2 Brown 2	Rosa 2 Pink 2

*S12 Color Code Chart for Microduct Assemblies*

## Articles 77

Article name	EL-Nb.	Color	Layout	Bend Radius [mm]	Tensile Force [N]	Crush Force, Installation [N]	Impact [J]	Dimensions [mm]	Weight [kg/km]	Length [m]
<b>Microduct 4x7/3.5 S12 OG 500 m</b> MPB30278/4M-2	2804187	Orange	4x7/3.5	210	1100	2500	15	15 × 15	175	500/K9
<b>Microduct 4x7/3.5 S12 YE</b> 4/MPB30278/4M		Yellow	4x7/3.5	210	1100	2500	15	15 × 15	175	5000/K20, 4000/K18, 2000/K14, 1000/K11
<b>Microduct 4x7/3.5 S12 YE 1000 m</b> 4/MPB30278/4M-1		Yellow	4x7/3.5	210	1100	2500	15	15 × 15	175	1000/K11
<b>Microduct 4x7/3.5 S12 YE 500 m</b> 4/MPB30278/4M-2		Yellow	4x7/3.5	210	1100	2500	15	15 × 15	175	500/K9
<b>Microduct 4x7/3.5 S12 RD</b> 2/MPB30278/4M		Red	4x7/3.5	210	1100	2500	15	15 × 15	175	5000/K20, 4000/K18, 2000/K14, 1000/K11
<b>Microduct 4x7/3.5 S12 RD 1000 m</b> 2/MPB30278/4M-1		Red	4x7/3.5	210	1100	2500	15	15 × 15	175	1000/K11
<b>Microduct 4x7/3.5 S12 RD 500 m</b> 2/MPB30278/4M-2		Red	4x7/3.5	210	1100	2500	15	15 × 15	175	500/K9
<b>Microduct 4x7/3.5 S12 WH</b> 5/MPB30278/4M		White	4x7/3.5	210	1100	2500	15	15 × 15	175	5000/K20, 4000/K18, 2000/K14, 1000/K11
<b>Microduct 4x7/3.5 S12 WH 1000 m</b> 5/MPB30278/4M-1		White	4x7/3.5	210	1100	2500	15	15 × 15	175	1000/K11
<b>Microduct 4x7/3.5 S12 WH 500 m</b> 5/MPB30278/4M-2		White	4x7/3.5	210	1100	2500	15	15 × 15	175	500/K9
<b>Microduct 4x7/3.5 S12 GN</b> 1/MPB30278/4M		Green	4x7/3.5	210	1100	2500	15	15 × 15	175	5000/K20, 4000/K18, 2000/K14, 1000/K11
<b>Microduct 4x7/3.5 S12 GN 1000 m</b> 1/MPB30278/4M-1		Green	4x7/3.5	210	1100	2500	15	15 × 15	175	1000/K11
<b>Microduct 4x7/3.5 S12 GN 500 m</b> 1/MPB30278/4M-2		Green	4x7/3.5	210	1100	2500	15	15 × 15	175	500/K9
<b>Microduct 4x7/3.5 S12 VT</b> 6/MPB30278/4M		Violet	4x7/3.5	210	1100	2500	15	15 × 15	175	5000/K20, 4000/K18, 2000/K14, 1000/K11
<b>Microduct 4x7/3.5 S12 BU</b> 3/MPB30278/4M		Blue	4x7/3.5	210	1100	2500	15	15 × 15	175	5000/K20, 4000/K18, 2000/K14, 1000/K11
<b>Microduct 4x7/3.5 S12 BU 1000 m</b> 3/MPB30278/4M-1		Blue	4x7/3.5	210	1100	2500	15	15 × 15	175	1000/K11

Article name	EL-No.	Color	Layout	Bend Radius [mm]	Tensile Force [N]	Crush Force [N/100 mm]	Impact [J]	Dimensions [mm]	Weight [kg/km]	Length [m]
<b>Microduct 4x7/3.5 S12 BU 500 m</b> 3/MPB30278/4M-2		Blue	4x7/3.5	210	1100	2500	15	15 x 15	175	500/K9
<b>Microduct 4x7/3.5 S12 GY</b> 9/MPB30278/4M		Gray/Slate	4x7/3.5	210	1100	2500	15	15 x 15	175	5000/K20, 4000/K18, 1000/K11, 2000/K14
<b>Microduct 4x7/3.5 S12 GY 1000 m</b> 9/MPB30278/4M-1		Gray/Slate	4x7/3.5	210	1100	2500	15	15 x 15	175	1000/K11
<b>Microduct 4x7/3.5 S12 GY 500 m</b> 9/MPB30278/4M-2		Gray/Slate	4x7/3.5	210	1100	2500	15	15 x 15	175	500/K9
<b>Microduct 4x7/3.5 S12 PK 1000 m</b> 7/MPB30278/4M-1		Pink/Rose	4x7/3.5	210	1100	2500	15	15 x 15	175	1000/K11
<b>Microduct 4x7/3.5 S12 PK</b> 7/MPB30278/4M		Pink/Rose	4x7/3.5	210	1100	2500	15	15 x 15	175	5000/K20, 4000/K18, 2000/K14, 1000/K11
<b>Microduct 4x7/3.5 S12 PK 500 m</b> 7/MPB30278/4M-2		Pink/Rose	4x7/3.5	210	1100	2500	15	15 x 15	175	500/K9
<b>Microduct 7x7/3.5 S12 OG</b> MPB30278/7M	2804188	Orange	7x7/3.5	220	2300	2500	15	22	250	4000/K22, 2000/K18, 1000/K12
<b>Microduct 7x7/3.5 S12 OG 1000 m</b> MPB30278/7M-1	2804188	Orange	7x7/3.5	220	2300	2500	15	22	250	1000/E14
<b>Microduct 7x7/3.5 S12 OG 500 m</b> MPB30278/7M-2		Orange	7x7/3.5	220	2300	2500	15	22	250	500/E14
<b>Microduct 7x7/3.5 S12 YE</b> 4/MPB30278/7M		Yellow	7x7/3.5	220	2300	2500	15	22	250	4000/K22, 2000/K18, 1000/K12
<b>Microduct 7x7/3.5 S12 YE 1000 m</b> 4/MPB30278/7M-1		Yellow	7x7/3.5	220	2300	2500	15	22	250	1000/E14
<b>Microduct 7x7/3.5 S12 YE 500 m</b> 4/MPB30278/7M-2		Yellow	7x7/3.5	220	2300	2500	15	22	250	500/E14
<b>Microduct 7x7/3.5 S12 RD</b> 2/MPB30278/7M		Red	7x7/3.5	220	2300	2500	15	22	250	4000/K22, 2000/K18, 1000/K12
<b>Microduct 7x7/3.5 S12 RD 1000 m</b> 2/MPB30278/7M-1		Red	7x7/3.5	220	2300	2500	15	22	250	1000/E14
<b>Microduct 7x7/3.5 S12 RD 500 m</b> 2/MPB30278/7M-2		Red	7x7/3.5	220	2300	2500	15	22	250	500/E14
<b>Microduct 7x7/3.5 S12 WH</b> 5/MPB30278/7M		White	7x7/3.5	220	2300	2500	15	22	250	4000/K22, 2000/K18, 1000/K12
<b>Microduct 7x7/3.5 S12 WH 1000 m</b> 5/MPB30278/7M-1		White	7x7/3.5	220	2300	2500	15	22	250	1000/E14
<b>Microduct 7x7/3.5 S12 WH 500 m</b> 5/MPB30278/7M-2		White	7x7/3.5	220	2300	2500	15	22	250	500/E14

Article name	EL-No.	Color	Layout	Bend Radius [mm]	Tensile Force [N]	Crush Force [N/100 mm]	Installation [N]	Impact [J]	Dimensions [mm]	Weight [kg/km]	Length [m]
<b>Microduct 7x7/3.5 S12 GN</b> 1/MPB30278/7M		Green	7x7/3.5	220	2300	2500	15	22	250	4000/K22, 2000/K18, 1000/K12	
<b>Microduct 7x7/3.5 S12 GN 1000 m</b> 1/MPB30278/7M-1		Green	7x7/3.5	220	2300	2500	15	22	250	1000/E14	
<b>Microduct 7x7/3.5 S12 GN 500 m</b> 1/MPB30278/7M-2		Green	7x7/3.5	220	2300	2500	15	22	250	500/E14	
<b>Microduct 7x7/3.5 S12 VT</b> 6/MPB30278/7M		Violet	7x7/3.5	220	2300	2500	15	22	250	4000/K22, 2000/K18, 1000/K12	
<b>Microduct 7x7/3.5 S12 VT 1000 m</b> 6/MPB30278/7M-1		Violet	7x7/3.5	220	2300	2500	15	22	250	1000/E14	
<b>Microduct 7x7/3.5 S12 VT 500 m</b> 6/MPB30278/7M-2		Violet	7x7/3.5	220	2300	2500	15	22	250	500/E14	
<b>Microduct 7x7/3.5 S12 BU</b> 3/MPB30278/7M		Blue	7x7/3.5	220	2300	2500	15	22	250	4000/K22, 2000/K18, 1000/K12	
<b>Microduct 7x7/3.5 S12 BU 1000 m</b> 3/MPB30278/7M-1		Blue	7x7/3.5	220	2300	2500	15	22	250	1000/E14	
<b>Microduct 7x7/3.5 S12 BU 500 m</b> 3/MPB30278/7M-2		Blue	7x7/3.5	220	2300	2500	15	22	250	500/E14	
<b>Microduct 7x7/3.5 S12 GY</b> 9/MPB30278/7M		Gray/Slate	7x7/3.5	220	2300	2500	15	22	250	4000/K22, 2000/K18, 1000/K12	
<b>Microduct 7x7/3.5 S12 GY 1000 m</b> 9/MPB30278/7M-1		Gray/Slate	7x7/3.5	220	2300	2500	15	22	250	1000/E14	
<b>Microduct 7x7/3.5 S12 GY 500 m</b> 9/MPB30278/7M-2		Gray/Slate	7x7/3.5	220	2300	2500	15	22	250	500/E14	
<b>Microduct 7x7/3.5 S12 PK</b> 7/MPB30278/7M		Pnk/Rose	7x7/3.5	220	2300	2500	15	22	250	4000/K22, 2000/K18, 1000/K12	
<b>Microduct 7x7/3.5 S12 PK 1000 m</b> 7/MPB30278/7M-1		Pnk/Rose	7x7/3.5	220	2300	2500	15	22	250	1000/E14	
<b>Microduct 7x7/3.5 S12 PK 500 m</b> 7/MPB30278/7M-2		Pnk/Rose	7x7/3.5	220	2300	2500	15	22	250	500/E14	
<b>Microduct 12x7/3.5 S12 OG</b> MPB30278/12M	2804189	Orange	12x7/3.5	300	3600	2500	15	30	455	2000/K22, 1000/K16	
<b>Microduct 12x7/3.5 S12 OG 1000 m</b> MPB30278/12M-1	2804189	Orange	12x7/3.5	300	3600	2500	15	30	455	1000/E14	
<b>Microduct 12x7/3.5 S12 OG 500 m</b> MPB30278/12M-2		Orange	12x7/3.5	300	3600	2500	15	30	455	500/E14	
<b>Microduct 12x7/3.5 S12 YE</b> 4/MPB30278/12M		Yellow	12x7/3.5	300	3600	2500	15	30	455	2000/K22, 1000/K16	
<b>Microduct 12x7/3.5 S12 YE 1000 m</b> 4/MPB30278/12M-1		Yellow	12x7/3.5	300	3600	2500	15	30	455	1000/E14	

Article name	EL-No.	Color	Layout	Bend Radius [mm]	Tensile Force [N]	Crush [N/100 mm]	Installation [N]	Impact [J]	Dimensions [mm]	Weight [kg/km]	Length [m]
<b>Microduct 12x7/3.5 S12 YE 500 m</b> 4/MPB30278/12M-2		Yellow	12x7/3.5	300	3600	2500	15	30	455	500/E14	
<b>Microduct 12x7/3.5 S12 RD</b> 2/MPB30278/12M		Red	12x7/3.5	300	3600	2500	15	30	455	2000/K22, 1000/K16	
<b>Microduct 12x7/3.5 S12 RD 1000 m</b> 2/MPB30278/12M-1		Red	12x7/3.5	300	3600	2500	15	30	455	1000/E14	
<b>Microduct 12x7/3.5 S12 RD 500 m</b> 2/MPB30278/12M-2		Red	12x7/3.5	300	3600	2500	15	30	455	500/E14	
<b>Microduct 12x7/3.5 S12 WH</b> 5/MPB30278/12M		White	12x7/3.5	300	3600	2500	15	30	455	2000/K22, 1000/K16	
<b>Microduct 12x7/3.5 S12 WH 1000 m</b> 5/MPB30278/12M-1		White	12x7/3.5	300	3600	2500	15	30	455	1000/E14	
<b>Microduct 12x7/3.5 S12 WH 500 m</b> 5/MPB30278/12M-2		White	12x7/3.5	300	3600	2500	15	30	455	500/E14	
<b>Microduct 12x7/3.5 S12 GN</b> 1/MPB30278/12M		Green	12x7/3.5	300	3600	2500	15	30	455	2000/K22, 1000/K16	
<b>Microduct 12x7/3.5 S12 GN 1000 m</b> 1/MPB30278/12M-1		Green	12x7/3.5	300	3600	2500	15	30	455	1000/E14	
<b>Microduct 12x7/3.5 S12 GN 500 m</b> 1/MPB30278/12M-2		Green	12x7/3.5	300	3600	2500	15	30	455	500/E14	
<b>Microduct 12x7/3.5 S12 VT</b> 6/MPB30278/12M		Violet	12x7/3.5	300	3600	2500	15	30	455	2000/K22, 1000/K16	
<b>Microduct 12x7/3.5 S12 BU</b> 3/MPB30278/12M		Blue	12x7/3.5	300	3600	2500	15	30	455	2000/K22, 1000/K16	
<b>Microduct 12x7/3.5 S12 BU 1000 m</b> 3/MPB30278/12M-1		Blue	12x7/3.5	300	3600	2500	15	30	455	1000/E14	
<b>Microduct 12x7/3.5 S12 BU 500 m</b> 3/MPB30278/12M-2		Blue	12x7/3.5	300	3600	2500	15	30	455	500/E14	
<b>Microduct 12x7/3.5 S12 GY</b> 9/MPB30278/12M		Gray/Slate	12x7/3.5	300	3600	2500	15	30	455	2000/K22, 1000/K16	
<b>Microduct 12x7/3.5 S12 GY 1000 m</b> 9/MPB30278/12M-1		Gray/Slate	12x7/3.5	300	3600	2500	15	30	455	1000/E14	
<b>Microduct 12x7/3.5 S12 GY 500 m</b> 9/MPB30278/12M-2		Gray/Slate	12x7/3.5	300	3600	2500	15	30	455	500/E14	
<b>Microduct 12x7/3.5 S12 PK</b> 7/MPB30278/12M		Pink/Rose	12x7/3.5	300	3600	2500	15	30	455	2000/K22, 1000/K16	
<b>Microduct 12x7/3.5 S12 PK 1000 m</b> 7/MPB30278/12M-1		Pink/Rose	12x7/3.5	300	3600	2500	15	30	455	1000/E14	
<b>Microduct 12x7/3.5 S12 PK 500 m</b> 7/MPB30278/12M-2		Pink/Rose	12x7/3.5	300	3600	2500	15	30	455	500/E14	
<b>Microduct 19x7/3.5 S12 OG</b> MPB30278/19M		Orange	19x7/3.5	360	5600	2500	15	36	455	2000/K22, 1000/K20, 500/K14	

Article name	EL-No.	Color	Layout	Bend Radius [mm]	Tensile Force [N]	Crush [N/100 mm]	Impact [J]	Dimensions [mm]	Weight [kg/km]	Length [m]
Microduct 24x7/3.5 S12 OG MPB30278/24M	2804191	Orange	24x7/3.5	440	7000	2500	15	44 × 33	798	500/K16, 1000/K22