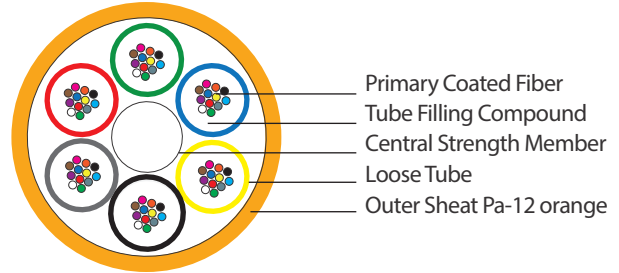


MULTI TUBE MICRO CABLE PA-12 IU
 (G657A/G652D) 24 - 72 fibers 5,3mm
 Loose Tube size - 1,40mm



Properties

- Multi Loose Tube Unarmoured
- Outer Sheath Nylon (PA-12) for optimal blowing length (Insect and Termite resistant)
- Completely dielectric / non metallic cable immune to electromagnetic interferences
- Suitable for Blowing
- Suitable for Micro duct Installation

Characteristics

Cable Diameter : 5,3 mm (+/-0,3) mm
 Cable Weight : 23 kg/km
 Transport : Wooden Drum
 Bending radius (installed) : 15 x Cable Diameter
 Max. Tension: During Installation 500 N
 Installed 350 N
 Crush Resistance: 500 N (100 x 100 mm) for 60 sec.
 Outer Sheath colour: orange
 Inkjet-Print: MICRO CABLE, FIBER COUNT, FIBER TYPE, PRODUCTION CODE, DRUM NUMBER

Specifications/Norms

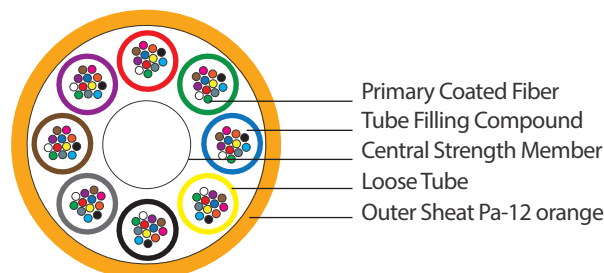
Standard: IEC 60794
 Temperature Range Norms : IEC 60794-1-2-F1
 Laying and Installation -20° to +70°C
 Operation -20° to +70°C
 Fiber colour : acc. to DIN
 Fiber type : Singlemode G657 A or G652 D IEC/ITU standards

Colourcode Fiber - colours in bundle (13 -24 with rings)
 Tube colours

1	2	3	4	5	6	7
red	green	blue	yellow	white	grey	brown
8	9	10	11	12		
violet	cyan	black	orange	rosa		

Cable type	Fiber Number	Fiber Type	Cable Ø	Recommended microduct inside Ø	Drum Length
ML Tube PA 5,3mm 2x12	24	G657A/G652D	5,3mm	8 - 16 mm	4 km
ML Tube PA 5,3mm 4x12	48	G657A/G652D	5,3mm	8 - 16 mm	4 km
ML Tube PA 5,3mm 6x12	72	G657A/G652D	5,3mm	8 - 16 mm	4 km

MULTI TUBE MICRO CABLE PA-12 IU
 (G657A/G652D) 96 fibers 6,1mm
 Loose Tube size - 1,40mm



Properties

- Multi Loose Tube Unarmoured
- Outer Sheath Nylon (PA-12) for optimal blowing length (Insect and Termite resistant)
- Completely dielectric / non metallic cable immune to electromagnetic interferences
- Suitable for Blowing
- Suitable for Micro duct Installation

Specifications/Norms

Standard:	IEC 60794
Temperature Range Norms :	IEC 60794-1-2-F1
Laying and Installation	-20° to +70°C
Operation	-20° to +70°C
Fiber colour :	acc. to DIN
Fiber type :	Singlemode G657 A or G652 D IEC/ITU standards

Characteristics

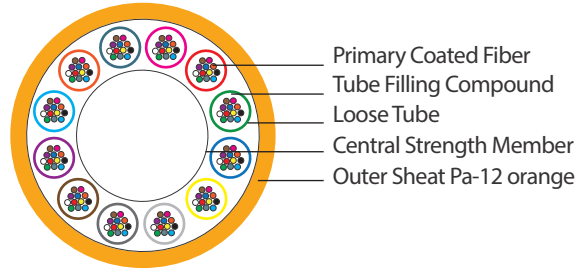
Cable Diameter : 6,1 mm (+/-0,3) mm
 Cable Weight : 34 kg/km
 Transport : Wooden Drum
 Bending radius (installed) : 15 x Cable Diameter
 Tensile Force: During Installation 1000 N
 Installed 850 N
 Crush Resistance: 500 N (100 x 100 mm) for 60 sec.
 Outer Sheath colour: orange
 Inkjet-Print: MICRO CABLE, FIBER COUNT, FIBER TYPE, PRODUCTION CODE, DRUM NUMBER

Colourcode Fiber - colours in bundle (13 -24 with rings)
 Tube colours

1	2	3	4	5	6	7
red	green	blue	yellow	white	grey	brown
8	9	10	11	12		
violet	cyan	black	orange	rosa		

Cable type	Fiber Number	Fiber Type	Cable Ø	Recommended microduct inside Ø	Drum Length
ML Tube PA 6,1mm 8x12	96	G657A/G652D	6,1mm	10 - 16 mm	4 km

**MULTI TUBE MICRO CABLE PA-12 IU
(G657A/G652D) 144 fibers 7,9 mm
Loose Tube size - 1,40mm**



Properties

- Multi Loose Tube Unarmoured
- Outer Sheath Nylon (PA-12) for optimal blowing length (Insect and Termite resistant)
- Completely dielectric / non metallic cable immune to electromagnetic interferences
- Suitable for Blowing
- Suitable for Micro duct Installation

Characteristics

Cable Diameter : 7,9 mm (+/-0,3) mm
 Cable Weight : 53kg/km
 Transport : Wooden Drum
 Bending radius (installed) : 15 x Cable Diameter
 Tensile Force: During Installation 1000 N
 Installed 850 N
 Crush Resistance: 500 N (100 x 100 mm) for 60 sec.
 Outer Sheath colour: orange
 Inkjet-Print: MICRO CABLE, FIBER COUNT, FIBER TYPE, PRODUCTION CODE, DRUM NUMBER

Specifications/Norms

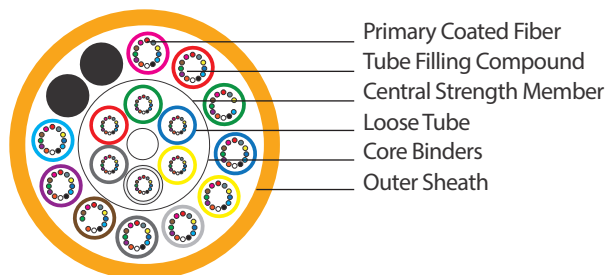
Standard: IEC 60794
 Temperature Range Norms : IEC 60794-1-2-F1
 Laying and Installation -20° to +70°C
 Operation -20° to +70°C
 Fiber colour : acc. to DIN
 Fiber type : Singlemode G657 A or G652 D IEC/ITU standards

Colourcode Fiber - colours in bundle (13 -24 with rings)
 Tube colours

1	2	3	4	5	6	7
red	green	blue	yellow	white	grey	brown
8	9	10	11	12		
violet	cyan	black	orange	rosa		

Cable type	Fiber Number	Fiber Type	Cable Ø	Recommended microduct inside Ø	Drum Length
ML Tube PA 7,9mm 12x12	144	G657A/G652D	7,9mm	12 - 16 mm	4 km

**MULTI TUBE MICRO CABLE PA-12 IU
(G657A/G652D) 192 fibers 8,3 mm
Loose Tube size - 1,40mm**



Properties

- Multi Loose Tube Unarmoured
- Outer Sheath Nylon (PA-12) for optimal blowing length (Insect and Termite resistant)
- Completely dielectric / non metallic cable immune to electromagnetic interferences
- Suitable for Blowing
- Suitable for Micro duct Installation
- Rip cords to open Outer Sheath

Specifications/Norms

Standard:	IEC 60794
Temperature Range Norms:	IEC 60794-1-2-F1
Laying and Installation	-20° to +70°C
Operation	-20° to +70°C
Fiber colour :	acc. to DIN
Fiber type :	Singlemode G657 A or G652 D IEC/ITU standards

Characteristics

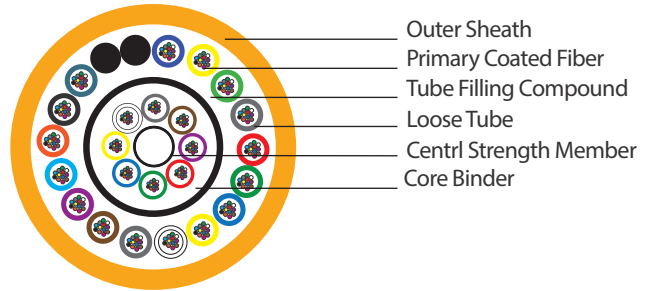
Cable Diameter : 8,3 mm (+/-0,3) mm
 Cable Weight : 51kg/km
 Transport : Wooden Drum
 Bending radius (installed) : 15 x Cable Diameter
 Tensile Force: During Installation 800 N
 Installed 650 N
 Crush Resistance: 500 N (100 x 100 mm) for 60 sec.
 Outer Sheath colour: orange
 Inkjet-Print: MICRO CABLE, FIBER COUNT, FIBER TYPE, PRODUCTION CODE, DRUM NUMBER

Colourcode Fiber - colours in bundle (13 -24 with rings)
 Tube colours

1	2	3	4	5	6	7
red	green	blue	yellow	white	grey	brown
8	9	10	11	12		
violet	cyan	black	orange	rosa		

Cable type	Fiber Number	Fiber Type	Cable Ø	Recommended microduct inside Ø	Drum Length
ML Tube PA 8,3mm 16x12	192	G657A/G652D	8,3mm	12 - 16 mm	4 km

MULTI TUBE MICRO CABLE PA-12 IU
 (G657A/G652D) 288 fibers 9,5 mm, 432 11,0 mm
 Loose Tube size - 1,40mm



Properties

- Multi Loose Tube Unarmoured
- Outer Sheath Nylon (PA-12) for optimal blowing length (Insect and Termite resistant)
- Completely dielectric / non metallic cable immune to electromagnetic interferences
- Suitable for Blowing
- Suitable for Micro duct Installation

Characteristics

Cable Diameter : 9,5 mm for 288F / 11,0 mm for 432F (+/-0,3) mm
 Cable Weight : 74 kg/km 288F / 96 kg/km 432F
 Transport : Wooden Drum
 Bending radius (installed) : 15 x Cable Diameter
 Tensile Force: During Installation 1500 N
 Installed 1250 N
 Crush Resistance: 500 N (100 x 100 mm) for 60 sec.
 Outer Sheath colour: orange
 Inkjet-Print: MICRO CABLE, FIBER COUNT, FIBER TYPE, PRODUCTION CODE, DRUM NUMBER

Specifications/Norms

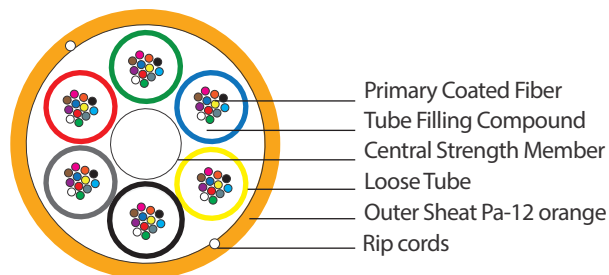
Standard: IEC 60794
 Temperature Range Norms : IEC 60794-1-2-F1
 Laying and Installation -20° to +70°C
 Operation -20° to +70°C
 Fiber colour : acc. to DIN
 Fiber type : Singlemode G657 A or G652 D IEC/ITU standards

Colourcode Fiber - colours in bundle (13 -24 with rings)
 Tube colours

1	2	3	4	5	6	7
red	green	blue	yellow	white	grey	brown
8	9	10	11	12		
violet	cyan	black	orange	rosa		

Cable type	Fiber Number	Fiber Type	Cable Ø	Recommended microduct inside Ø	Drum Length
ML Tube PA 9,5mm 24x12	288	G657A/G652D	9,5mm	16 - 20 mm	4 km
ML Tube PA 11,0mm 18x24	432	G657A/G652D	11,0mm	16 - 20 mm	4 km

**MULTI TUBE MICRO CABLE PA-12 IU
(G657A/G652D) 24 - 72 fibers 5,7 mm
Loose Tube size - 1,55mm**



Properties

- Multi Loose Tube Unarmoured
- Outer Sheath Nylon (PA-12) for optimal blowing length (Insect and Termite resistant)
- Completely dielectric / non metallic cable immune to electromagnetic interferences
- Suitable for Blowing
- Suitable for Micro duct Installation
- Rip cords to open Outer Sheath

Characteristics

Cable Diameter : 5,7 mm
 Cable Weight : 24 kg/km
 Transport : Wooden Drum
 Bending radius (installed) : 15 x Cable Diameter
 Max. Tension: During Installation 650 N
 Installed 500 N
 Crush Resistance: 500 N (100 x 100 mm) for 60 sec.
 Outer Sheath colour: orange
 Inkjet-Print: MICRO CABLE, FIBER COUNT, FIBER TYPE, PRODUCTION CODE, DRUM NUMBER

Specifications/Norms

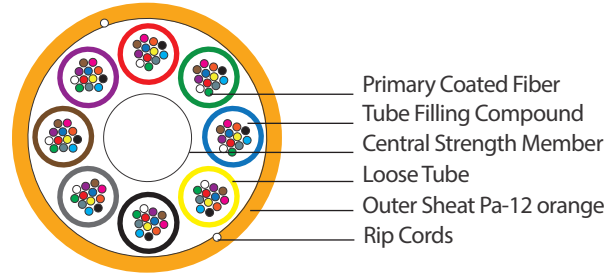
Standard:	IEC 60794
Temperature Range Norms :	IEC 60794-1-2-F1
Laying and Installation	-30° to +70°C
Operation	-30° to +70°C
Fiber colour :	acc. to DIN
Fiber type :	Singlemode G657 A or G652 D IEC/ITU standards

Colourcode Fiber - colours in bundle (13 -24 with rings)
 Tube colours

1	2	3	4	5	6	7
red	green	blue	yellow	white	grey	brown
8	9	10	11	12		
violet	cyan	black	orange	rosa		

Cable type	Fiber Number	Fiber Type	Cable Ø	Recommended microduct inside Ø	Drum Length
ML Tube PA 5,7mm 2x12	24	G657A/G652D	5,7mm	8 - 16 mm	4 km
ML Tube PA 5,7mm 4x12	48	G657A/G652D	5,7mm	8 - 16 mm	4 km
ML Tube PA 5,7mm 6x12	72	G657A/G652D	5,7mm	8 - 16 mm	4 km

MULTI TUBE MICRO CABLE PA-12 IU
 (G657A/G652D) 96 fibers 6,3 mm
 Loose Tube size - 1,55mm



Properties

- Multi Loose Tube Unarmoured
- Outer Sheath Nylon (PA-12) for optimal blowing length (Insect and Termite resistant)
- Completely dielectric / non metallic cable immune to electromagnetic interferences
- Suitable for Blowing
- Suitable for Micro duct Installation
- Rip cords to open Outer Sheath

Characteristics

Cable Diameter : 6,3 mm
 Cable Weight : 35 kg/km
 Transport : Wooden Drum
 Bending radius (installed) : 15 x Cable Diameter
 Tensile Force: During Installation 1500 N
 Installed 1000 N
 Crush Resistance: 500 N (100 x 100 mm) for 60 sec.
 Outer Sheath colour: orange
 Inkjet-Print: MICRO CABLE, FIBER COUNT, FIBER TYPE, PRODUCTION CODE, DRUM NUMBER

Specifications/Norms

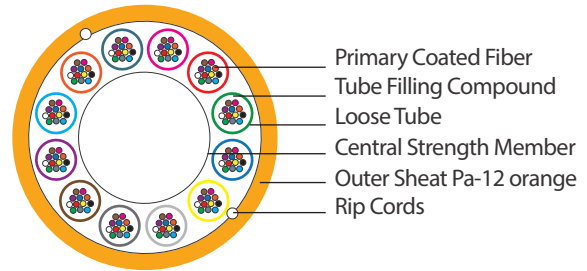
Standard: IEC 60794
 Temperature Range Norms : IEC 60794-1-2-F1
 Laying and Installation -30° to +70°C
 Operation -30° to +70°C
 Fiber colour : acc. to DIN
 Fiber type : Singlemode G657 A or G652 D IEC/ITU standards

Colourcode Fiber - colours in bundle (13 -24 with rings)
 Tube colours

1	2	3	4	5	6	7
red	green	blue	yellow	white	grey	brown
8	9	10	11	12		
violet	cyan	black	orange	rosa		

Cable type	Fiber Number	Fiber Type	Cable Ø	Recommended microduct inside Ø	Drum Length
ML Tube PA 6,3mm 8x12	96	G657A/G652D	6,3mm	10 - 16 mm	4 km

**MULTI TUBE MICRO CABLE PA-12 IU
(G657A/G652D) 144fibers 8,5 mm
Loose Tube size - 1,55mm**



Properties

- Multi Loose Tube Unarmoured
- Outer Sheath Nylon (PA-12) for optimal blowing length (Insect and Termite resistant)
- Completely dielectric / non metallic cable immune to electromagnetic interferences
- Suitable for Blowing
- Suitable for Micro duct Installation
- Rip cords to open Outer Sheath

Characteristics

Cable Diameter : 8,5 mm
 Cable Weight : 58kg/km
 Transport : Wooden Drum
 Bending radius (installed) : 15 x Cable Diameter
 Tensile Force: During Installation 1500 N
 Installed 1000 N
 Crush Resistance: 500 N (100 x 100 mm) for 60 sec.
 Outer Sheath colour: orange
 Inkjet-Print: MICRO CABLE, FIBER COUNT, FIBER TYPE, PRODUCTION CODE, DRUM NUMBER

Specifications/Norms

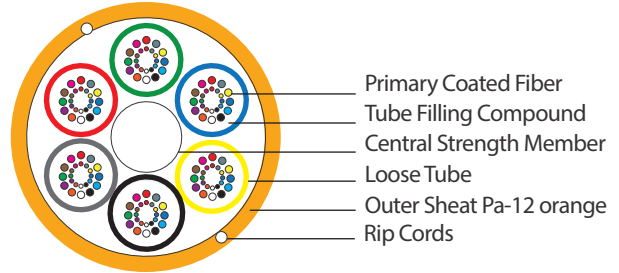
Standard: IEC 60794
 Temperature Range Norms : IEC 60794-1-2-F1
 Laying and Installation -30° to +70°C
 Operation -30° to +70°C
 Fiber colour : acc. to DIN
 Fiber type : Singlemode G657 A or G652 D IEC/ITU standards

Colourcode Fiber - colours in bundle (13 -24 with rings)
 Tube colours

1	2	3	4	5	6	7
red	green	blue	yellow	white	grey	brown
8	9	10	11	12		
violet	cyan	black	orange	rosa		

Cable type	Fiber Number	Fiber Type	Cable Ø	Recommended microduct inside Ø	Drum Length
ML Tube PA 8,5mm 12x12	144	G657A/G652D	8,5mm	12 - 16 mm	4 km

MULTI TUBE MICRO CABLE PA-12 IU
 (G657A/G652D) 144 fibers 8,2 mm
 Loose Tube size - 1,55mm



Properties

- Multi Loose Tube Unarmoured
- Outer Sheath Nylon (PA-12) for optimal blowing length (Insect and Termite resistant)
- Completely dielectric / non metallic cable immune to electromagnetic interferences
- Suitable for Indoor use
- Suitable for Micro duct Installation
- Rip cords to open Outer Sheath

Characteristics

Cable Diameter : 8,2 mm
 Cable Weight : 60 kg/km
 Transport : Wooden Drum
 Bending radius (installed) : 15 x Cable Diameter
 Tensile Force: During Installation 1500 N
 Installed 1000 N
 Crush Resistance: 500 N (100 x 100 mm) for 60 sec.
 Outer Sheath colour: orange
 Inkjet-Print: MICRO CABLE, FIBER COUNT, FIBER TYPE, PRODUCTION CODE, DRUM NUMBER

Specifications/Norms

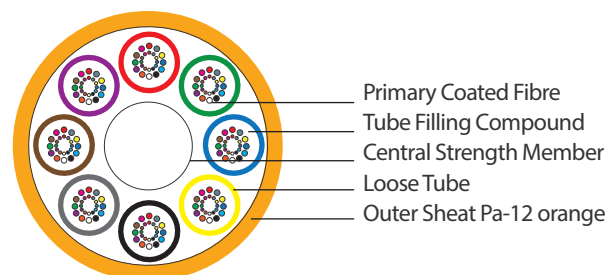
Standard:	IEC 60794
Temperature Range Norms :	IEC 60794-1-2-F1
Laying and Installation	-30° to +70°C
Operation	-30° to +70°C
Fiber colour :	acc. to DIN
Fiber type :	Singlemode G657 A or G652 D IEC/ITU standards

Colourcode Fiber - colours in bundle (13 -24 with rings)
 Tube colours

1	2	3	4	5	6	7
red	green	blue	yellow	white	grey	brown
8	9	10	11	12		
violet	cyan	black	orange	rosa		

Cable type	Fiber Number	Fiber Type	Cable Ø	Recommended microduct inside Ø	Drum Length
ML Tube PA 8,2mm 6x24	144	G657A/G652D	8,2 mm	12 - 16 mm	4 km

**MULTI TUBE MICRO CABLE PA-12 IU
(G657A/G652D) 192 fibers 9,7 mm
Loose Tube size - 1,55mm**



Properties

- Multi Loose Tube Unarmoured
- Outer Sheath Nylon (PA-12) for optimal blowing length (Insect and Termite resistant)
- Completely dielectric / non metallic cable immune to electromagnetic interferences
- Suitable for Indoor use
- Suitable for Micro duct Installation

Specifications/Norms

Standard:	IEC 60794
Temperature Range Norms :	IEC 60794-1-2-F1
Laying and Installation	-30° to +70°C
Operation	-30° to +70°C
Fiber colour :	acc. to DIN
Fiber type :	Singlemode G657 A or G652 D IEC/ITU standards

Characteristics

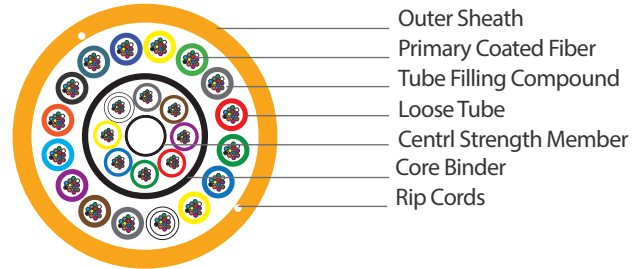
Cable Diameter : 9.7 mm
 Cable Weight : 80 kg/km
 Transport : Wooden Drum
 Bending radius (installed) : 15 x Cable Diameter
 Tensile Force: During Installation 1500 N
 Installed 1000 N
 Crush Resistance: 500 N (100 x 100 mm) for 60 sec.
 Outer Sheath colour: orange
 Inkjet-Print: MICRO CABLE, FIBER COUNT, FIBER TYPE,
 PRODUCTION CODE, DRUM NUMBER

Colourcode Fiber - colours in bundle (13 -24 with rings)
 Tube colours

1	2	3	4	5	6	7
red	green	blue	yellow	white	grey	brown
8	9	10	11	12		
violet	cyan	black	orange	rosa		

Cable type	Fiber Number	Fiber Type	Cable Ø	Recommended microduct inside Ø	Drum Length
ML Tube PA 9,7mm 8x24	192	G657A/G652D	9,7mm	16 mm - 20mm	4 km

**MULTI TUBE MICRO CABLE PA-12 IU
(G657A/G652D) 288 fibers 10,5 mm
Loose Tube size - 1,55mm**



Properties

- Multi Loose Tube Unarmoured
- Outer Sheath Nylon (PA-12) for optimal blowing length (Insect and Termite resistant)
- Completely dielectric / non metallic cable immune to electromagnetic interferences
- Suitable for Micro duct Installation
- Rip cords to open Outer Sheath

Specifications/Norms

Standard:	IEC 60794
Temperature Range Norms :	IEC 60794-1-2-F1
Laying and Installation	-30° to +70°C
Operation	-30° to +70°C
Fiber colour :	acc. to DIN
Fiber type :	Singlemode G657 A or G652 D IEC/ITU standards

Characteristics

Cable Diameter : 10,5 mm
 Cable Weight : 80 kg/km
 Transport : Wooden Drum
 Bending radius (installed) : 10 x Cable Diameter
 Tensile Force: During Installation 1500 N
 Installed 1000 N
 Crush Resistance: 700 N (100 x 100 mm) for 60 sec.
 Outer Sheath colour: orange
 Inkjet-Print: MICRO CABLE, FIBER COUNT, FIBER TYPE, PRODUCTION CODE, DRUM NUMBER

**Colourcode Fiber - colours in bundle (13 -24 with rings)
Tube colours**

1	2	3	4	5	6	7
red	green	blue	yellow	white	grey	brown
8	9	10	11	12		
violet	cyan	black	orange	rosa		

Cable type	Fiber Number	Fiber Type	Cable Ø	Recommended microduct inside Ø	Drum Length
ML Tube PA 10,5mm 24x12	288	G657A/G652D	10,5 mm	16 mm - 20mm	4 km