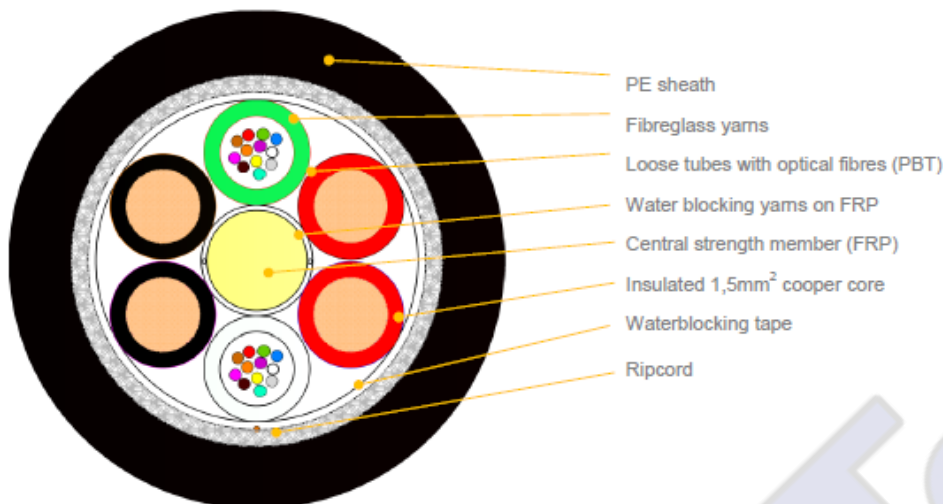


Duct multitube structure cable with copper conductors reinforced with fiberglass yarns



*schematic drawing, not to scale

APPLICATION:

For installation into existing duct or directly buried
Good resistance to traction and compression

STRUCTURE AND COMPOSITION:

FRP strength and anti-buckling element
Insulated cooper cores 1,5mm² (Ø 2.2mm)
Loose tubes with filling compound (PBT Ø 2.2mm)
Tape and dry yarns to prevent moisture into the cable
Fiberglass yarns as strain relief elements
UV stabilized PE outer sheath
Other outer sheaths materials available

CABLE DESIGNS:

Variant	Quantity [pcs]				Ø nominal (±5%) [mm]	Nominal weight (±10%) [kg/km]	Max allowed tension [N]	Max static tension [N]
	Fibres	Fibres per tube	Total elements	Active tubes				
1T x 12F + 2 x 1,5mm ²	12	12	6	1	10,7	127	2700	1300
1T x 12F + 3 x 1,5mm ²	12	12	6	1	10,7	149	2700	1300
1T x 12F + 4 x 1,5mm ²	12	12	6	1	10,7	170	2700	1300
1T x 12F + 5 x 1,5mm ²	12	12	6	1	10,7	192	2700	1300
-								
2T x 12F + 1 x 1,5mm ²	24	12	6	2	10,7	107	2700	1300
2T x 12F + 2 x 1,5mm ²	24	12	6	2	10,7	128	2700	1300
2T x 12F + 3 x 1,5mm ²	24	12	6	2	10,7	150	2700	1300
2T x 12F + 4 x 1,5mm ²	24	12	6	2	10,7	171	2700	1300
-								
3T x 12F + 1 x 1,5mm ²	36	12	6	3	10,7	108	2700	1300
3T x 12F + 2 x 1,5mm ²	36	12	6	3	10,7	129	2700	1300
3T x 12F + 3 x 1,5mm ²	36	12	6	3	10,7	151	2700	1300
-								
4T x 12F + 1 x 1,5mm ²	48	12	6	4	10,7	109	2700	1300
4T x 12F + 2 x 1,5mm ²	48	12	6	4	10,7	130	2700	1300
-								
5T x 12F + 1 x 1,5mm ²	60	12	6	5	10,7	110	2700	1300
-								
1T x 12F + 7 x 1,5mm ²	12	12	8	1	12,1	253	2700	1300
1T x 12F + 6 x 1,5mm ²	12	12	8	1	12,1	231	2700	1300
2T x 12F + 5 x 1,5mm ²	12	12	8	1	12,1	211	2700	1300
2T x 12F + 6 x 1,5mm ²	24	12	8	2	12,1	232	2700	1300
3T x 12F + 4 x 1,5mm ²	36	12	8	3	12,1	190	2700	1300
3T x 12F + 5 x 1,5mm ²	36	12	8	3	12,1	212	2700	1300
4T x 12F + 3 x 1,5mm ²	48	12	8	4	12,1	170	2700	1300
4T x 12F + 4 x 1,5mm ²	48	12	8	4	12,1	191	2700	1300

Other fibre counts available on demand. Cooper wires colours to consult.

MECHANICAL AND ENVIRONMENTAL CHARACTERISTICS

Crush performance:	2700 [N/10 cm]	IEC 60794-1-2-E3, $\Delta\alpha\leq 0,05$ dB
Bending radius:	Static: 15 x D Dynamic: 20 x D	IEC 60794-1-2-E11, $\Delta\alpha\leq 0,05$ dB
Water penetration:	3m sample, 1m head, 24h	IEC 60794-1-2-F5, no leakage
Temperature range:	Installation: -15... +55 [°C] Operation: -40... +70 [°C] Transport & Storage: -40... +70 [°C]	IEC 60794-1-2-F1, $\Delta\alpha\leq 0,05$ dB/km

The customer (as a system designer) is responsible for selection of the amount, and a cross section of copper wires suitable for his needs in such a way that the current load does not result in exceeding the maximum allowed fibre operating temperature (+ 70 ° C) or permissible operating temperature of insulated conductors.

TECHNICAL COOPER WIRE CHARACTERISTICS

Max DC resistance	12,3 Ω /km@20°C
Electric strength	3400 V DC/1 minute
Current carrying capacity	7A
Operating voltage	65V AC/DC
Conductor material	Bare copper
Conductor cross section	1,5mm ²
Insulated conductor dia.	2,2mm
Insulation material	PVC