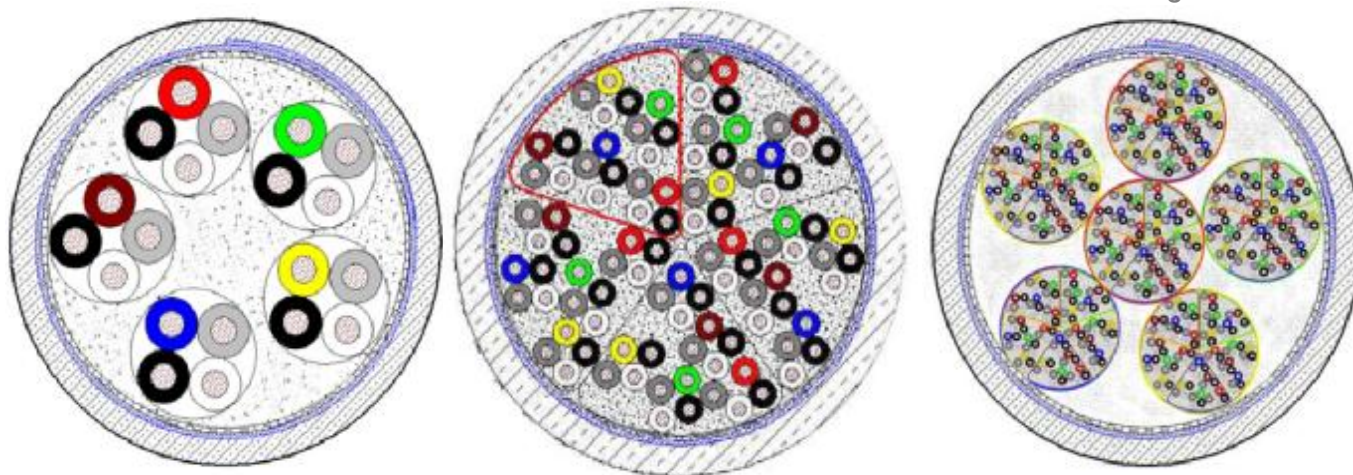


**Telecommunication cables and wires**
**Qv n x 4 x 0,4 / 0,6 / 0,8 mm**

Foam-Skin-PE-insulated and PE sheathed and jelly filled underground cable


**Application**

Used for installation of local networks, directly laid into ground or installed in pipes.

**Construction**

|                     |  |
|---------------------|--|
| Conductor           | copper, solid, 0,4; 0,6; 0,8 mm, soft annealed   |
| Insulation          | foam-skin-PE (O2YS)  |
| Twisting            | star quads in unit stranding (SZ-stranding)  |
| Filling             | interstices filled with petrol jelly, drop point $\geq 70$ °C  |
| Cable core wrapping | one or more layers of water swellable plastic tape   |
| Moisture barrier    | laminated sheath formed by an aluminium tape (at least 0.15 mm thick) coated on both sides with copolymer, and bonded with |
| Outer sheath        | PE (2Y), black   |

**Mechanical and Thermal Properties**

|                   |                     |                  |
|-------------------|---------------------|------------------|
| Temperature range | during operation    | - 20°C to + 70°C |
|                   | during installation | - 20°C to + 50°C |



## Telecommunication cables and wires

Qv n x 4 x 0,4 / 0,6 / 0,8 mm

## Electrical Properties

at 20°C ± 5°C

| Conductor diameter                               | mm      | 0,4    | 0,6    | 0,8   |
|--|---------|--------|--------|-------|
| <b>Conductor loop resistance</b>                 |         |        |        |       |
| average value                                    | Ω/km    | ≤288   | ≤127,8 | ≤70,6 |
| individual value                                 | Ω/km    | ≤300   | ≤130   | ≤73.2 |
| <b>Insulation resistance</b>                     |         |        |        |       |
|  | GΩxkm   | ≥10    |        |       |
| <b>Mutual capacitance at 800 Hz</b>              |         |        |        |       |
| 100% of all values                               | nF/km   | 43 ± 3 |        |       |
| <b>Capacitance unbalance at 800 Hz</b>           |         |        |        |       |
| k1 pair to pair                                  | pF/500m | ≤800   |        |       |
| k9-k12 pair to pair                              | pF/500m | ≤300   |        |       |
| e1-e2 pair to earth                              | pF/500m | ≤800   |        |       |
| <b>Dielectric strength test at 50 Hz – 2 min</b> |         |        |        |       |
| core/core  | V       | 600    |        |       |
| core/screen                                      | V       | 2000   |        |       |
| <b>Spark test</b>                                |         |        |        |       |
|  | kV      | 8      |        |       |



## Telecommunication cables and wires

Qv n x 4 x 0,4 / 0,6 / 0,8 mm

## Additional Properties

| Dimension         | Nominal outer diameter | Cable weight net | Standard length net | Drum size diameter | Transport weight | Thickness steel tape | Reduction factor minimum (50Hz) | Cu weight |
|-------------------|------------------------|------------------|---------------------|--------------------|------------------|----------------------|---------------------------------|-----------|
|                   | mm                     | kg/km            | m                   | mm                 | kg/drum          | mm                   |                                 | kg/km     |
| <b>Qv nx4x0,4</b> |                        |                  |                     |                    |                  |                      |                                 |           |
| 3                 | 7,4                    | 60               |                     |                    |                  |                      |                                 | 16        |
| 5                 | 9,2                    | 90               |                     |                    |                  |                      |                                 | 26        |
| 10                | 10,8                   | 130              |                     |                    |                  |                      |                                 | 51        |
| 15                | 12,2                   | 170              |                     |                    |                  |                      |                                 | 76        |
| 25                | 14,9                   | 260              |                     |                    |                  |                      |                                 | 126       |
| 35                | 16,6                   | 330              |                     |                    |                  |                      |                                 | 176       |
| 50                | 19,0                   | 440              |                     |                    |                  |                      |                                 | 252       |
| 75                | 22,0                   | 620              |                     |                    |                  |                      |                                 | 377       |
| 100               | 25,1                   | 800              |                     |                    |                  |                      |                                 | 503       |
| 150               | 30,0                   | 1 160            |                     |                    |                  |                      |                                 | 754       |
| 200               | 33,3                   | 1 480            |                     |                    |                  |                      |                                 | 1005      |
| 300               | 40,7                   | 2 200            |                     |                    |                  |                      |                                 | 1508      |
| 400               | 46,9                   | 2 910            |                     |                    |                  |                      |                                 | 2011      |
| 500               | 58,7                   | 2 680            |                     |                    |                  |                      |                                 | 2514      |
| 600               | 64,4                   | 3 190            |                     |                    |                  |                      |                                 | 3016      |
| 800               |                        |                  |                     |                    |                  |                      |                                 |           |
| 1000              | <76,0                  | 6 860            |                     |                    |                  |                      |                                 | 5027      |
| <b>Qv nx4x0,6</b> |                        |                  |                     |                    |                  |                      |                                 |           |
| 3                 | 9,8                    | 110              |                     |                    |                  |                      |                                 | 34        |
| 5                 | 11,3                   | 140              |                     |                    |                  |                      |                                 | 57        |
| 10                | 14,2                   | 240              |                     |                    |                  |                      |                                 | 113       |
| 15                | 16,2                   | 320              |                     |                    |                  |                      |                                 | 170       |
| 25                | 19,0                   | 480              |                     |                    |                  |                      |                                 | 283       |
| 35                | 22,2                   | 630              |                     |                    |                  |                      |                                 | 396       |
| 50                | 26,0                   | 880              |                     |                    |                  |                      |                                 | 566       |
| 75                | 30,6                   | 1 250            |                     |                    |                  |                      |                                 | 849       |
| 100               | 34,5                   | 1 620            |                     |                    |                  |                      |                                 | 1131      |
| 150               | 42,0                   | 3 400            |                     |                    |                  |                      |                                 | 1697      |
| 200               | 47,7                   | 3 160            |                     |                    |                  |                      |                                 | 2262      |
| 300               | 58,9                   | 4 740            |                     |                    |                  |                      |                                 | 3393      |
| 400               | 66,8                   | 6 200            |                     |                    |                  |                      |                                 | 4524      |



## Telecommunication cables and wires

Qv n x 4 x 0,4 / 0,6 / 0,8 mm

## Additional Properties

| Dimension  | Nominal<br>outer<br>diameter | Cable<br>weight net | Standard<br>length net | Drum size<br>diameter | Transport<br>weight | Thickness<br>steel tape | Reduction<br>factor<br>minimum<br>(50Hz) | Cu weight |
|------------|------------------------------|---------------------|------------------------|-----------------------|---------------------|-------------------------|--|-----------|
|            | mm                           | kg/km               | m                      | mm                    | kg/drum             | mm                      |  | kg/km     |
| Qv nx4x0,8 |                              |                     |                        |                       |                     |                         |  |           |
| 3          | 12,1                         | 160                 |                        |                       |                     |                         |  | 61        |
| 5          | 14,5                         | 230                 |                        |                       |                     |                         |  | 101       |
| 10         | 18,0                         | 380                 |                        |                       |                     |                         |  | 202       |
| 15         | 21,0                         | 530                 |                        |                       |                     |                         |  | 302       |
| 25         | 26,0                         | 830                 |                        |                       |                     |                         |  | 503       |
| 50         | 34,6                         | 1 530               |                        |                       |                     |                         |  | 1006      |
| 75         | 41,5                         | 2 240               |                        |                       |                     |                         |  | 1508      |
| 100        | 47,9                         | 2 970               |                        |                       |                     |                         |  | 2011      |
| 200        | 65,8                         | 5 770               |                        |                       |                     |                         |  | 4022      |