



Draka Comteq | Telecom

JETnet Components

Non-metallic uni-tube cables for microducts

Acc. to IEC 60794-5

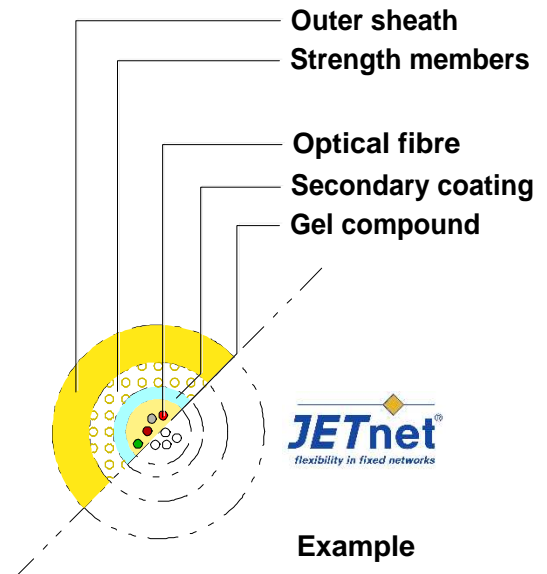
JN - URE

### APPLICATION

Installation in backbones, metropolitan and access networks in microducts.

### FEATURES

- Immunity to RFI and EMI
- Fully watertight construction
- Optimised jetting characteristics
- Acc. to IEC 60794-5



### CONSTRUCTION

- Optical fibre : For fibre specification see optical characteristics.  
Every fibre is uniquely identified by a fibre colour and for fibre counts above 12 fibres with a coloured fibre bundle yarn.
- Secondary coating : The secondary coating consists of a 'single tube' made of thermoplastic material.
- Gel compound : The tube is filled with a non-toxic and dermatological safe gel compound.
- Strength members : Non-metallic strength members are applied in the cable.
- Outer sheath : The cable sheath consists of a special high-density polyethylene compound. The sheath colour is orange for graded index (multi mode) fibres and yellow for single mode fibres.



All values in this product data sheet are nominal unless otherwise stated.

| Number of fibres | Ordering Code                          |                                      |                                        | Dimensions                            | Mechanical                             |                                      |
|------------------|----------------------------------------|--------------------------------------|----------------------------------------|---------------------------------------|----------------------------------------|--------------------------------------|
|                  | Single Mode<br>9/125 µm<br>ITU-T G652D | Multi Mode<br>50/125 µm<br>ITU- G651 | Multi Mode<br>62.5/125 µm<br>IEC 793-2 | Diameter over<br>outer sheath<br>[mm] | Cable weight<br>[kg.km <sup>-1</sup> ] | Pulling force<br>installation<br>[N] |
| 2                | 18005157                               | 18003059                             | 18003065                               | 3.9                                   | 12.2                                   | 250                                  |
| 4                | 18005158                               | 18003060                             | 18003066                               | 3.9                                   | 12.2                                   | 250                                  |
| 6                | 18005159                               | 18003061                             | 18003067                               | 3.9                                   | 12.2                                   | 250                                  |
| 8                | 18005160                               | 18003062                             | 18003068                               | 3.9                                   | 12.3                                   | 250                                  |
| 12               | 18005092                               | 18002988                             | 18003069                               | 3.9                                   | 12.4                                   | 250                                  |
| 24               | 18005093                               | 18002945                             | 18003070                               | 3.9                                   | 12.8                                   | 250                                  |
| 36               | 18005161                               | 18002989                             | --                                     | 5.0                                   | 20.8                                   | 400                                  |
| 48               | 18005162                               | 18002990                             | 18003302                               | 5.0                                   | 21.2                                   | 400                                  |
| 60               | 18005163                               | --                                   | --                                     | 5.6                                   | 26.8                                   | 500                                  |
| 72               | 18005164                               | --                                   | --                                     | 5.9                                   | 30.2                                   | 500                                  |
| 96               | 18005486                               | --                                   | --                                     | 6.5                                   | 38.0                                   | 500                                  |

## Fibre colouring

| Fibre no     | 1   | 2     | 3      | 4    | 5     | 6      |
|--------------|-----|-------|--------|------|-------|--------|
| Fibre colour | Red | White | Yellow | Blue | Green | Violet |

| Fibre no     | 7     | 8     | 9      | 10        | 11   | 12   |
|--------------|-------|-------|--------|-----------|------|------|
| Fibre colour | Brown | Black | Orange | Turquoise | Pink | Grey |

## Yarn colouring

| Fibre bundle no | 1   | 2     | 3      | 4    | 5     | 6     |
|-----------------|-----|-------|--------|------|-------|-------|
| Yarn colour     | Red | White | Yellow | Blue | Green | Black |

| Fibre bundle no | 7     | 8    |
|-----------------|-------|------|
| Yarn colour     | Brown | Grey |

## Sheath marking

|                                                                                                    |
|----------------------------------------------------------------------------------------------------|
| JETNET DRAKA COMTEQ TELECOM [year of manufacture] [fibre count] x [fibre type]<br>[length marking] |
|----------------------------------------------------------------------------------------------------|

## Mechanical characteristics

|                   |                                 |              |                               |
|-------------------|---------------------------------|--------------|-------------------------------|
| Temperature range | - Transport, storage, operation | - 40 to + 70 | °C                            |
|                   | - Installation                  | - 10 to + 50 | °C                            |
| Bending radius    | - Repeated bending              | min. 15 x D  | D=Outer diameter of the cable |
|                   | - Cable bend                    | min. 10 x D  |                               |
| Crush resistance  |                                 | 1500         | N/10cm                        |
| Impact resistance | (no fibre break)                | 5            | Nm                            |



## Optical characteristics (cabled max. values )

| Fibre type              | Single mode<br>DFT™                    |           |      |           |                       |
|-------------------------|----------------------------------------|-----------|------|-----------|-----------------------|
| Acc. to specification   | ITU-T G.652.C/D – Low water peak fibre |           |      |           |                       |
| Mode field diameter     | 9.2 ± 0.5                              |           |      |           | µm                    |
| Cladding diameter       | 125 ± 1                                |           |      |           | µm                    |
| Coating diameter        | 245 ± 10                               |           |      |           | µm                    |
| Wavelength              | 1310                                   | 1285-1530 | 1550 | 1570-1625 | nm                    |
| Attenuation coefficient | 0.38                                   | 0.40      | 0.25 | 0.30      | dB/km                 |
| Wavelength              | -                                      | 1285-1330 | 1550 | -         | nm                    |
| Dispersion              | -                                      | 3.5       | 18.0 | -         | ps/nm.km              |
| Link PMD                | 0.2                                    |           |      |           | ps.km <sup>-1/2</sup> |

## Optical characteristics (cabled max. values )

| Fibre type              | Multi mode 50/125 µm |      |       |
|-------------------------|----------------------|------|-------|
| Acc. to specification   | ITU-T G.651          |      |       |
| Core diameter           | 50 ± 3               |      | µm    |
| Cladding diameter       | 125 ± 2              |      | µm    |
| Coating diameter        | 245 ± 10             |      | µm    |
| Wavelength              | 850                  | 1300 | nm    |
| Attenuation coefficient | 2.8                  | 0.8  | dB/km |

## Optical characteristics (cabled max. values )

| Fibre type              | Multi mode 62.5/125 µm |      |       |
|-------------------------|------------------------|------|-------|
| Acc. to specification   | IEC 793-2              |      |       |
| Core diameter           | 62.5 ± 3               |      | µm    |
| Cladding diameter       | 125 ± 2                |      | µm    |
| Coating diameter        | 245 ± 10               |      | µm    |
| Wavelength              | 850                    | 1300 | nm    |
| Attenuation coefficient | 3.0                    | 1.0  | dB/km |

## Testing and inspection Testing will comprise the following:

|                              |                                                                                |
|------------------------------|--------------------------------------------------------------------------------|
| - Optical characteristics    | Attenuation ( Single mode at 1310 / 1550 nm)<br>( Multi mode at 850 / 1300 nm) |
| - Mechanical characteristics | Thickness of sheaths<br>Diameter of cable                                      |
| - Visual inspection of cable | Colouring of fibres<br>Colour of sheaths<br>Identification                     |

The mechanical characteristics and visual inspection shall be carried out with a frequency of 1 out of 10 drums, starting with the first drum. The first drum shall always be checked when the quantity is less than 10 drums.

Certified test results are provided upon request.

If testing and inspection is required to be carried out by third parties, such parties will be nominated and paid by the Purchaser.

## Packing

|                         |                                                                         |
|-------------------------|-------------------------------------------------------------------------|
| Typical standard length | 4000 m                                                                  |
| Length tolerance        | To be agreed upon                                                       |
| Sealing of cable ends   | To prevent ingress of moisture the cable ends are sealed with end caps. |