

## Data Sheet

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### EmiterNet PE FTP (F/UTP) Cat.6 outdoor gel-filled cable, code: K/EMITERNET-FTP6Out-GEL.

#### Description and Technical Characteristics of the Product:

Category 6 four-pair shielded cable is designed for ICT data transmission systems. The cable design is based on a central separator that separates the individual pairs to reduce near-end crosstalk. The separator is made of PVC and takes the form of a cross. The cable has 4 pairs of wires (the strands are made of pure copper) twisted together in such a way to reduce near-end crosstalk. In addition, the pairs are protected with an aluminium foil shield. As a result, this cable can be used in places where it is exposed to both external eavesdropping and electromagnetic interference from, among others, high-voltage light fixtures, electric motors, etc. The outer sleeving of the cable is made of weather-resistant PE polyethylene. The inner core is filled with hydrophobic gel to ensure the cable's resistance to longitudinal water penetration. Thanks to the combination of polyethylene insulation and gel filling, the cable can be laid directly in the ground. The cable has 4 pairs of colour-coded wires. The manufacturer's designation is printed on the cable, as well as standards compliance and length marking (EmiterNet -HN FTP Cat.6 PE+GEL 23AWG x 4PR outdoor, Verified to EN/PL 50173 ISO/IEC 11801 EIA/TIA 568-C.2 MM/YY xxxm).



#### Technical parameters:

Outer diameter of the cable	7.5mm +/- 0.5mm
Diameter of a single strand	0.57mm; 23 AWG
Outer insulation of the cable	PE
Colour of external insulation	Black
Strand insulation	HDPE
Strands	single-wire copper
Core	hydrophobic gel
Wave impedance	100Ω +/- 15Ω for 1–250MHz
Resistance of any pair for DC voltage	95Ω/km
NVP	62.00%
Insulation resistance of any strand (min)	150MΩ/km
Mutual capacitance of any pair (f=1kHz)	330pF/100m
Bending radius when laying	80mm
Bending radius during operation	50mm
Operating temperature	-40°C - +70 °C
Temperature during laying	0°C - +50 °C
Weight	65 kg/km
Packaging	305m drum

## Data Sheet

<b>Parameters</b>			
<b>Dynamic parameters:</b>			
<i>Frequency</i>	<i>Return Loss</i>	<i>Attenuation</i>	<i>NEXT</i>
(MHz)	(dB)	(dB/100m)	(dB)
1	20	2.0	74.3
4	23	3.8	66.3
8	24.5	5.3	61.8
10	25	6.0	60.3
16	25	7.6	57.2
20	25	8.5	55.8
25	24.3	9.5	54.3
31.25	23.6	10.7	52.9
62.5	21.5	15.4	48.4
100	20.1	19.8	45.3
200	18.0	29.0	40.8
250	17.3	32.8	39.3
<i>Frequency</i>	<i>PSNEXT</i>	<i>ELFEXT</i>	<i>PSELFEXT</i>
(MHz)	(dB)	(dB/100m)	(dB/100m)
1	72.3	67.8	64.8
4	63.3	56	53.0
8	58.8	49.9	46.9
10	57.3	48	45.0
16	54.2	43.9	40.9
20	52.8	42.0	39.0
25	51.3	40.0	37.0
31.25	49.9	38.1	35.1
62.5	45.4	32.1	29.1
100	42.3	28.0	25.0
200	37.8	22.0	19.0
250	36.3	20.0	17.0

**Standards compliance:** TIA/EIA 568-C.2, ISO/IEC 11801, PN-EN50173

Product warranty 5 years from the date of purchase.

**Attention:**

**The cable is not dedicated to making certified networks!**

We have made every effort to ensure that the information presented is accurate and complete. However, we are not responsible for the accuracy and completeness of the data and, in particular, we cannot guarantee that this specification does not contain errors or mistakes. The information contained in this specification may be changed at any time without notice.

