

Silec Cable category 6 F-UTP cables (4 Pairs and 2x4 Pairs)

1. A cable range compliant to new standards

Category 6 **Silec Cable** F-UTP cables exist with 4 pairs (simplex) and 2 x 4 pairs (duplex cable, easy to split up), with a LSZH or a PVC sheath.

They comply with new EN50288-5-1, EN 50173, CEI 61156-5 and ISO 11801 standards.

They are flam-retardant according to NFC 32070 category C2 and CEI 60332-1 standards.

2. A design offering unique advantages

Category 6 **Silec Cable** F-UTP cables bring a high level of transmission performance, an efficient keeping of pairs, a very good compacity and are easy to install owing to a specific designing :

- **Quality of the insulation** : Conductors are insulated with foam-skin polyethylene. So, the signal propagation speed inside pairs is increased and the diameter of insulated wires smaller, bringing a better handleability during connecting.
- The resulting nominal propagation speed (or NPS) is higher than 70% (to be compared with 66% as required by standards) and the diameter of insulated wires decreases of more than 10% (nominal \varnothing : 1 mm).
- **Colour coding** : For an easier identification during connecting, wires with dual colors (white with blue or orange or green or brown rings) are replaced by pastel mono-coloured wires. So checking of cabling plans near connectors is easier (no risk of mistake between 2 white wires).
- **Reversed screen**: The screen with aluminium on the outer side makes connecting easier with a very good quality of contact. So, it's not necessary to reverse the screen at the cable end for connecting, and screen breaking risks are suppressed. Consequently EMI performance (Electro-Magnetic Interference) of the link is significantly higher and the cable end preparation for connecting is more simple.
- **Electric symmetry of pairs** : The X central separator (Crossfiller) ensure an efficient keeping of pairs and a good distance between pairs, limiting diaphony problems. This design brings also a good stability of the cable geometry during handling and installation. Moreover, the drain wire, frequently at the origin of dissymetry problems, is not in contact with pairs (because of the reversed screen) and has no influence on symmetry.
- **Easy access to pairs** : **Silec Cable** design (crossfiller, foam-skin insulation, reversed screen) does not need additional plastic tapes around the cable core. With traditional designs, these additional tapes, used for pairs keeping, and to prevent a contact between the pairs and the drain wire, generate strain during connecting. They have to be removed and cut before connecting. With **Silec** cables the access to pairs needs only 2 steps :
 - sheath removal
 - cutting of the screen at the required length without reversing.

3. Compatibility with most of category 6 connectors of the market

Several links using **Silec Cable** category 6 F-UTP cables and different category 6 connectors have been measured with field testers according to ISO 11801 and EN 50173 standards.

All tested configurations gave results compliant to ISO 11801 and EN 50173 class E standards on permanent links.

List of category 6 connectors tested:

- INFRA + : 7700 GE
- AMP : CAT 6 SL JACK 568 A/B SHIELDED
- 3M : Volition SCQ one-click K6 (VOL-OCK6-S)
- Legrand : Mosaic STP cat 6 (742 87)
- SOFIM : cat 6

Note : this list is not exhaustive.

