

ACOLAN[®] 450 FU

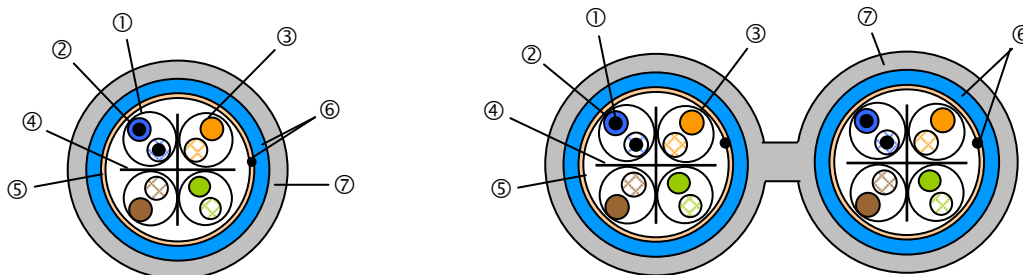
Horizontal Cables F/UTP - 100 Ohms - 450 MHz - Category 6
4P and 2x4P LSOH or PVC

Behaviour with
fire



Possible applications

- High speed data transmission cables are designed for horizontal cable distribution local computer networks.
- These cables are permitted the protocol supported by the **class E**.
- They are characterized at frequencies of up to **450 MHz**.



Cable construction

- ① - **Conductor diameter** : \varnothing 0,535 mm (24AWG)
- ② - **Insulation** : \varnothing Pe 1,10 mm
- ③ - **Cable assembly** : pairs
Number of pairs : 4 and 8 (2x4)
- ④ - Cross separator
- ⑤ - **Protection** : Synthetic water-repellent tape
- ⑥ - **Shield** : Alu/Polyester tape and continuity wire
- ⑦ - **Sheath material** : LSOH or PVC

Colour code

- Blue + White/Blue
- Orange + White/Orange
- Green + White/Green
- Brown + White/Brown

Directive / standard

Applications	Cables	Cabling system standard	Cabling system installation standards	Directive
IEEE 802.3	IEC 61156-5	IS 11801 ed.2	EN 50174	RoHS 2002/95/EC
IEEE 802.5	EN 50288-5-1	EN 50173-1		
FDDI		EIA/TIA 568		
ATM				
RNIS				

Fire resistance

PVC sheath

IEC 60332-1
NF C 32-070 2.1 (C2)

LSOH sheath

IEC 60332-1
NF C 32-070 2.1 (C2)
NF C 32-070 2.2 (C1)
(smoke emission low)
IEC 60754-1
IEC 60754-2
IEC 61034

Additional information and references

Type	Reference	Colour	Max diameter mm	Weight Kg/km	PCS (superior calorific capacity)		Max. pulling tension (N)	Delivery length	
					MJ/Km	KWh/m		500m	1000m
ACOLAN [®] 450 FU 4P LSOH	M5007	Ivory RAL 9001	7,20	48	712	0,198	80	Drum KC	Drum XC
ACOLAN [®] 450 FU 4P PVC	M5006	Grey RAL 7035	7,20	45	744	0,207	80	Drum KC	Drum XC
ACOLAN [®] 450 FUD 2x4P LSOH	M5009	Ivory RAL 9001	7,20 x 14,40	93	1 354	0,376	160	Drum KC	Drum AC
ACOLAN [®] 450 FUD 2x4P PVC	M5008	Grey RAL 7035	7,20 x 14,40	92	1 528	0,424	160	Drum KC	-

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Mechanical characteristics

Bending radius	Dynamic (installation)	≥ 60 mm
	Static (installed)	≥ 30 mm
Temperature range	In service	- 20°C at + 60°C
	At the installation	0°C at + 50°C
	Transport and storage	0°C at + 50°C

Electrical characteristics at 20°C

Complete conductor resistance		≤ 190 Ω / km
Resistance unbalance		≤ 2 %
Dielectric strength	Continuous current	1kV during = 1 minute no breakdown
Insulation resistance	(500 V)	≥ 5000 MΩ . km
Capacitance unbalance	Real-ground	≤ 1600 pF / km
Characteristic impedance	at 100 MHz	100 ± 5 Ω
Velocity	nominal	78 %
Transfer impedance	at 1 MHz	≤ 40 mΩ / m
	at 10 MHz	≤ 40 mΩ / m
	at 30 MHz	≤ 50 mΩ / m
	at 100 MHz	≤ 200 mΩ / m

Transmission characteristics at 20°C

Frequency (MHz)		4	10	20	62.5	100	250	300**	450**
Max. attenuat. (dB/100m)	Typical value	3.6	5.7	8.3	14.8	19	31	34	43
	Cat. 6* (max.)	3.8	6	8.5	15.5	19.9	33	-	-
Min. Next (dB)	Typical value	71	65	61	53	50	44	43	40
	Cat. 6* (min.)	65.3	59.3	54.8	47.4	44.3	38.3	-	-
PS Next (dB)	Typical value	68	62	58	50	47	41	40	37
	Cat. 6* (min.)	63.3	57.3	52.8	45.4	42.3	36.3	-	-
ELFEXT (dB/100 m)	Typical value	73	65	59	49	45	37	35	32
	Cat. 6* (min.)	58	50	44	34.1	30	22	-	-
PS ELFEXT (dB/100 m)	Typical value	70	62	56	46	42	34	32	29
	Cat. 6* (min.)	55	47	41	31.1	27	19	-	-
Return Loss (dB)	Typical value	27	27	27	25.8	25	22	22	21
	Cat. 6* (min.)	23	25	25	21.5	20.1	17.3	-	-

* Category 6 acc. to IEC 61156-5

** For information only