

UNIT FILLED PAIR CABLE, MOISTURE BARRIER SHEATH. TELEFONICA STANDARD



Telecommunications cable



Water blocked



UV resistant



ROHS compliant

STANDARDS

Telefónica GT.ER.f5.002

DESCRIPTION AND APPLICATION

Telephone cables from 6 to 2424 pairs, copper conductors from 0.405 to 0.91 mm diameter, solid PE insulation. The pairs are twisted into units of 25 pairs and these are stranded to form the core. The core is filled with a compound of PE petroleum jelly and protected with a moisture barrier sheath. They are used as distribution or connecting cables between areas. The installation may be either in ducts without pressurization or directly buried.

CONSTRUCTION

- **Conductors:** Annealed copper, diameters of 0.40, 0.51, 0.64 and 0.91 mm.
- **Insulation:** Solid HDPE.
- **Cabling elements:** Pairs.
- **Lay-up:** Up to 26 pairs into layers. Cables over 26 pairs in units of 25 pairs.
- **Filling compound:** Petroleum jelly.
- **Core wrapping:** Dielectric tape longitudinally applied with overlap.
- **Screen:** Longitudinal aluminium tape coated with PE copolymer applied with overlap and bonded to the outer PE sheath.
- **Sheath:** Black PE, UV resistant.
- **Sheath marking:** The outer sheath shall be marked at regular intervals with the following information:
 - Name of Manufacturer / year / Length markings
 - Other type of markings is also possible according to the customer



ELECTRICAL CHARACTERISTICS (20°C)	0,40	0,51	0,64	0,91
Maximum conductor Resistance (Ω/km)	144,2	89,5	56,6	28,5
Resistance unbalance (%) $100 \times (R_{\text{max}} - R_{\text{min}}) / (R_{\text{min}} + R_{\text{max}})$	Average: 1,5 % / Maximum 5,0 %			
Minimum insulation resistance ($M\Omega \times \text{km}$, 15°C, 500 V)	16000			
Mutual capacitance (nF/km , 800 Hz)	Average: 52±3 / Maximum 58			
Capacitance unbalance (pF/km , 800 Hz)	Pair-pair < 45rms (<12 pairs) / < 145 (>12 pairs) Pair-earth Average: < 574 (>12 pairs) / maximum: < 2625			
Dielectric strength (Vdc, 3 s)				
conductor – conductor	2500	3000	3600	4500
conductor - screen	5000	5000	10000	10000

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TRANSMISSION CHARACTERISTICS (20°C)	0,40	0,51	0,64	0,91
<i>Nominal attenuation (dB/km)</i>				
0,8 KHz	1.64	1.30	1.04	0.74
3 KHz	3.18	2.52	2.01	1.42
150 KHz	11.4	8.30	6.20	4.40
1000 KHz	22.6	18.4	15.1	11.0
<i>ELFEXT PS (PSELFEXT, dB/305 m, 1000 KHz, 50 pairs)</i>				
Minimum average	44.5	46.2	46.5	48.2
Minimum value	40.4	40.4	40.4	42.4
<i>NEXT PS (PSNEXT, dB/305 m, 1000 KHz, 50 pairs)</i>				
Minimum average		45.2		
Minimum value		40.1		

MECHANICAL CHARACTERISTICS

Temperature range: from -25° C to +65° C

Minimum bending radius: 12 x R_{cable}

DIMENSIONS AND WEIGHTS

Diameter : 0.41 mm					
Code	# Pairs	Cable diam (mm)	Weight approx. (kg/km)	Length (m)	Drum

EA3103041000602N	6	8.5	80	2000	08
EA3103041001102N	11	10.0	110	2000	08
EA3103041001602N	16	11.5	140	2000	A0
EA3103041002602N	26	13.0	190	2000	A0
EA3103041005102N	51	16.0	310	2000	A4
EA3103041007602N	76	18.0	420	2000	A4
EA3103041010102N	101	20.5	540	2000	A6
EA3103041015202N	152	24.0	770	2000	A8
EA3103041020202N	202	27.0	1000	2000	A8
EA3103041030302N	303	32.0	1450	1800	B1
EA3103041040402N	404	36.5	1875	1300	B1
EA3103041060602N	606	43.5	2725	1000	B1
EA3103041090902N	909	52.0	4025	690	B1
EA3103041121202N	1212	59.5	5250	400	B1
EA3103041151502N	1515	67.0	6475	370	B1
EA3103041181802N	1818	72.0	7750	300	B1
EA3103041242402N	2424	82.5	10225	200	B1

Diameter : 0.51 mm					
Code	# Pairs	Cable diam (mm)	Weight approx. (kg/km)	Length (m)	Drum

EA3103051000602N	6	9.5	100	2000	08
EA3103051001102N	11	11.5	150	2000	A0
EA3103051001602N	16	13.0	190	2000	A2
EA3103051002602N	26	15.0	270	2000	A4
EA3103051005102N	51	19.0	450	2000	A6
EA3103051007602N	76	22.0	630	2000	A6
EA3103051010102N	101	25.5	850	2000	A8
EA3103051015202N	152	30.0	1225	1900	B1
EA3103051020202N	202	34.0	1575	1500	B1
EA3103051030302N	303	40.5	2275	1000	B1
EA3103051040402N	404	46.0	2950	880	B1
EA3103051060602N	606	55.0	4325	640	B1
EA3103051090902N	909	66.5	6375	350	B1
EA3103051121202N	1212	76.0	8425	200	B1

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Diameter : 0.64 mm					
Code	# Pairs	Cable diam (mm)	Weight approx. (kg/km)	Length (m)	Drum

EA3103064000602N	6	11.5	140	2000	08
EA3103064001102N	11	13.5	210	2000	A2
EA3103064001602N	16	15.0	270	2000	A4
EA3103064002602N	26	17.5	390	2000	A4
EA3103064005102N	51	23.0	680	2000	A6
EA3103064007602N	76	27.0	970	2000	A8
EA3103064010102N	101	31.5	1300	1800	B1
EA3103064015202N	152	37.5	1850	1300	B1
EA3103064020202N	202	42.0	2425	1000	B1
EA3103064030302N	303	50.5	3525	690	B1
EA3103064040402N	404	57.5	4625	500	B1
EA3103064060602N	606	69.5	6825	340	B1
EA3103064090902N	909	84.0	10050	180	B1

Diameter : 0.91 mm					
Code	# Pairs	Cable diam (mm)	Weight approx. (kg/km)	Length (m)	Drum

EA3103091000602N	6	14.0	230	2000	A4
EA3103091001102N	11	17.5	350	2000	A4
EA3103091001602N	16	20.0	470	2000	A6
EA3103091002602N	26	24.0	710	2000	A8
EA3103091005102N	51	31.5	1300	1800	B1
EA3103091007602N	76	37.5	1875	1300	B1
EA3103091010102N	101	43.5	2500	1000	B1
EA3103091015202N	152	52.5	3650	640	B1
EA3103091020202N	202	59.5	4775	480	B1
EA3103091030302N	303	72.0	7050	340	B1
EA3103091040402N	404	82.5	9300	220	B1

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