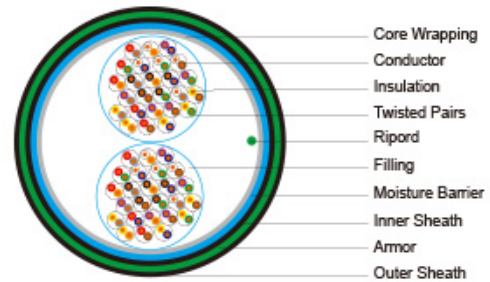
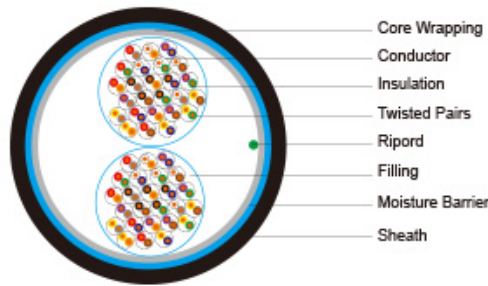


Cellular PE Insulated & PE Sheathed Jelly Filled Cables to CW1236



Application	The cables are fully filled with petroleum jelly, being designed for use in access or trunk networks, from telephone exchange to subscriber area. The cables are suitable for installation in ducts and direct burial in the ground.
Standards	CW1236
Construction	
Conductors:	Solid annealed bare copper 0.32/0.4/0.5/0.63/0.9mm as per class 1 of BS 6360/IEC 60228
Insulation:	Cellular polyethylene as per BS 6234/BS EN 50290-2-23/IEC 60708
Twisted Pairs:	Insulated conductors are twisted into pairs with varying lay length to minimize crosstalk
Cabling Element:	Twisted Pairs
Cable Core Assembly:	Cables with up to 100 pairs are composed of 25-pair units or 12/13-pair units; cables with over 100 pairs are composed of 25, 50 or 100-pair units cabled together. Any extra pairs form a separate unit. Units are identified by colour coded binders. Standard construction is per CW 1236 given in Cable Make Up Diagram
Core Wrapping:	One or more non-hygroscopic polyester tapes are helically or longitudinally laid with an overlap. These tapes furnish thermal, mechanical as well as high dielectric protection between shielding and individual conductors
Moisture Barrier:	An optional aluminium tape (0.15mm) coated with PE-copolymer on one or both sides is applied longitudinally with overlap over the cable core to provide 100% electrical shielding coverage and ensures a barrier against water vapor
Filling:	The cable core interstices are filled with petroleum jelly to avoid longitudinal water penetration within the cable. The water resistant filling compound is applied to the air space between non-hygroscopic tape and shield, shield and sheath within the cable core
Sheath:	Black low density polyethylene as per BS 6234/IEC 60708, being able to withstand exposure to sunlight, temperature variations, ground chemicals and other environmental contaminants
Ripcord:	Ripcord may be provided for slitting the sheath longitudinally to facilitate its removal
Spare Pairs (optional):	Spare pairs may be incorporated for 200 and larger pair cables
Continuity Wire (optional):	One tinned copper drain wire may be longitudinally laid to ensure electrical continuity of the screen

Optional Construction

Armoured Cable Steel wire armour or corrugated steel tape armour is applied over an optional inner polyethylene sheath. For steel tape version, the 0.15mm thick steel tape is coated with a copolymer and applied with an overlap. An outer polyethylene sheath is applied over the armour

Electrical Properties

Nominal Conductor Diameter	mm	0.32	0.4	0.5	0.63	0.9
Conductor Gauge Size	AWG	28	26	24	22	19
Conductor Size	mm ²	0.08	0.126	0.196	0.312	0.636
Maximum Average Conductor Resistance @20°C	Ω/km	223	143	91	58	28
Minimum Insulation Resistance @500V DC	MΩ.km	1500	1500	1500	1500	1500
verage Mutual Capacitance @800Hz*	nF/km	56	56	56	56	59
Maximum Individual Mutual Capacitance @800Hz (for 99% cases)	nF/km	64	64	64	64	65
Maximum Individual Capacitance Unbalance @800Hz pair-to-pair(for 99% cases)	pF/500m	275	275	275	275	275
Maximum Conductor Loop Resistance @20°C	Ω/km	470	300	192	114	60
Impedance @1KHz	Ω	1000	994	796	660	445
Impedance @100KHz	Ω	156	147	134	125	122
Impedance @512KHz	Ω	122	120	118	117	116
Impedance @1MHz	Ω	120	117	115	114	113
Maximum Average Attenuation @0.8KHz	dB/km	1.76	1.64	1.3	1.04	0.74
Maximum Average Attenuation @1KHz	dB/km	1.8	1.68	1.35	1.08	0.76
Maximum Average Attenuation @3KHz	dB/km	3.4	3.18	2.52	2.01	1.42
Maximum Average Attenuation @150KHz	dB/km	16.8	11.4	8.3	6.2	4.4
Maximum Average Attenuation @772KHz	dB/km	29.5	24.3	19.4	15.4	10.8
Maximum Average Attenuation @1000KHz	dB/km	33.5	27.1	21.4	17.5	12.8
Dielectric Strength Conductor to Conductor (3secs)	V DC	500	500	500	500	500

Nominal Insulation Thickness	mm	0.145	0.175	0.2	0.26	0.3
Nominal Insulated Conductor Diameter	mm	0.61	0.75	0.9	1.15	1.5

*Mutual capacitance values for 0.63mm & 0.9mm may be increased by 3% for cables with a nominal number of pairs less than 400.

Mechanical and Thermal Properties

Temperature range during operation (fixed state): -30°C – +70°C

Temperature range during installation (mobile state): -20°C – +50°C

Minimum bending radius: 10 x Overall Diameter (unarmoured cables); 15 x Overall Diameter (armoured cables)

Colour Code

Standard colour code is per CW 1236 given in Colour Code Chart