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# Standard Materials for Structured Cabling (568) Systems

## Four-pair 100 ohm UTP cables

The cable consists of 24 AWG thermoplastic insulated conductors formed into four individually twisted pairs and enclosed by a thermoplastic jacket. Four-pair, 22 AWG cables which meet the transmission requirements may also be used. Four-pair, *shielded* twisted pair cables which meet the transmission requirements may also be used.

The diameter over the insulation shall be 1.22mm (0.048 in) max.

The pair twists of any pair shall not be exactly the same as any other pair. The pair twist lengths shall be selected by the manufacturer to assure compliance with the crosstalk requirements of this standard.

Color Codes	
Pair 1 White-Blue (W-BL)	Blue (BL)"
Pair 2 White-Orange (W-O)	Orange (O)"
Pair 3 White-Green (W-G)	Green (G)"
Pair 4 White-Brown (W-BR)	Brown (BR)"

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## Cable Specifications:

- The diameter of the completed cable shall be less than 6.35mm (0.25in)
- The ultimate breaking strength of the completed cable is 90 lb minimum. Maximum *pulling* tension should not exceed 25 lb to avoid stretching.
- The cable tested shall withstand a bend radius of 25.4mm (1in) at a temperature of -20C without jacket or insulation cracking.
- The resistance of any conductor shall not exceed 28.6 ohms per 305m (1000ft.) at or corrected to a temperature of 20C.
- The resistance unbalance between the two conductors of any pair shall not exceed 5% when measured at or corrected to a temperature of 20C in...
- The mutual capacitance of any pair at 1kHz shall not exceed 20 nF per 305 M (1000ft.)
- The mutual capacitance of any pair at 1 kHz and measured at or corrected at a temperature of 20C, shall not exceed 17 nF per 305 m (1000ft) for category 4 and category 5 cables.
- the capacitance unbalance to ground at 1 kHz of any pair shall not exceed 1000 pF per 305m (1000ft.).

