

TABLE 400.4 Continued

Trade Name	Type Letter	Voltage	AWG or kcmil	Number of Conductors	Insulation	AWG or kcmil	Nominal Insulation Thickness		Braid on Each Conductor	Outer Covering	Use		
							mm	mils					
Vacuum cleaner cord	SV	300	18–16	2 or 3	Thermoset	18–16	0.38	15	None	Thermoset	Pendant or portable	Damp locations	Not hard usage
	SVE	300			Thermoplastic elastomer					Thermoplastic elastomer			
	SVEO	300			Oil-resistant thermoplastic elastomer								
	SVEOO	300											
	SVO	300			Thermoset					Oil-resistant thermoset			
	SVOO	300			Oil-resistant thermoset					Oil-resistant thermoset			
	SVT	300			Thermoplastic					Thermoplastic			
	SVTO	300			Thermoplastic					Oil-resistant thermoplastic			
	SVTOO	300			Oil-resistant thermoplastic								
Parallel tinsel cord	TPT ¹¹	300	27	2	Thermoplastic	27	0.76	30	None	Thermoplastic	Attached to an appliance	Damp locations	Not hard usage
Jacketed tinsel cord	TST ¹¹	300	27	2	Thermoplastic	27	0.38	15	None	Thermoplastic	Attached to an appliance	Damp locations	Not hard usage
Portable power cable	W ⁷	2000	12–500 501– 1000	1–6 1	Thermoset	12–2	1.52	60		Oil-resistant thermoset	Portable, extra-hard usage		
						1–4/0	2.03	80					
						250–500	2.41	95					
						501–1000	2.80	110					

Notes:

All types listed in Table 400.4 shall have individual conductors twisted together, except for Types HPN, SP-1, SP-2, SP-3, SPE-1, SPE-2, SPE-3, SPT-1, SPT-2, SPT-3, SPT-1W, SPT-2W, TPT, NISP-1, NISP-2, NISPT-1, NISPT-2, NISPE-1, NISPE-2, and three-conductor parallel versions of SRD, SRDE, and SRDT.

The individual conductors of all cords, except those of heat-resistant cords, shall have a thermoset or thermoplastic insulation, except that the equipment grounding conductor, where used, shall be in accordance with 400.23(B).

¹Rubber-filled or varnished cambric tapes shall be permitted as a substitute for the inner braids.

²Elevator traveling cables for operating control and signal circuits shall contain nonmetallic fillers as necessary to maintain concentricity. Cables shall have steel supporting members as required for suspension by 620.41. In locations subject to excessive moisture or corrosive vapors or gases, supporting members of other materials shall be permitted. Where steel supporting members are used, they shall run straight through the center of the cable assembly and shall not be cabled with the copper strands of any conductor.

In addition to conductors used for control and signaling circuits, Types E, EO, ETP, and ETT elevator cables shall be permitted to incorporate in the construction one or more of the following: optical fibers; 24 AWG or larger telephone conductor pairs, coaxial cables, or communications cables. The 24 AWG or larger conductor pairs shall be permitted to be covered with suitable shielding for telephone, audio, data transfer, or higher frequency communications circuits; the coaxial cables shall consist of a center conductor, insulation, and a shield for use in video or other radio frequency communications circuits. The optical fiber shall be suitably covered with flame-retardant thermoplastic. The insulation of the conductors shall be rubber or thermoplastic of a thickness not less than specified for the other conductors of the particular type of cable. Metallic shields shall have their own protective covering. Where used, these components shall be permitted to be incorporated in any layer of the cable assembly but shall not run straight through the center.

³Insulations and outer coverings that meet the requirements as flame retardant, limited smoke, and are so listed, shall be permitted to be marked for limited smoke after the Code type designation.

⁴Elevator cables in sizes 20 AWG through 14 AWG are rated 300 volts, and sizes 10 AWG through 2 AWG are rated 600 volts. 12 AWG is rated 300 volts with a 0.76 mm (30 mil) insulation thickness and 600 volts with a 1.14 mm (45 mil) insulation thickness.

⁵Conductor size for Types EV, EVJ, EVE, EVJE, EVT, and EVJT cables apply to nonpower-limited circuits only. Conductors of power-limited (data, signal, or communications) circuits may extend beyond the stated AWG size range. All conductors shall be insulated for the same cable voltage rating.

⁶Insulation thickness for Types EV, EVJ, EVEJE, EVT, and EVJT cables of nylon construction is indicated in parentheses.

⁷Types G, G-GC, S, SC, SCE, SCT, SE, SEO, SEOO, SEW, SEOW, SEOWW, SO, SOO, SOW, SOOW, ST, STO, STOO, STW, STOW, STOWW, PPE, and W shall be permitted for use on theater stages, in garages, and elsewhere where flexible cords are permitted by this Code.

⁸The third conductor in Type HPN shall be used as an equipment grounding conductor only. The insulation of the equipment grounding conductor for Types SPE-1, SPE-2, SPE-3, SPT-1, SPT-2, SPT-3, NISPT-1, NISPT-2, NISPE-1, and NISPE-2 shall be permitted to be thermoset polymer.

⁹Cords that comply with the requirements for outdoor cords and are so listed shall be permitted to be designated as weather and water resistant with the suffix "W" after the Code type designation. Cords with the "W" suffix are suitable for use in wet locations and are sunlight resistant.

¹⁰The required outer covering on some single-conductor cables may be integral with the insulation.

¹¹Types TPT and TST shall be permitted in lengths not exceeding 2.5 m (8 ft) where attached directly, or by means of a special type of plug, to a portable appliance rated at 50 watts or less and of such nature that extreme flexibility of the cord is essential.