

## UL Cordage Type

### Designation

UL Cord Type	Description
HPN	Heater Parallel Neoprene
HSJ	Heater Service Junior
HSJO	HSJ with Oil-Resistant Jacket
S	Service
SE	Service Elastomer
SEO	SE with Oil-Resistant Jacket
SE00	SEO with Oil-Resistant Insulation
SJ	Service Junior
SJE	Service Junior Elastomer
SJEO	SJE with Oil-Resistant Jacket
SJEO0	SJEO with Oil-Resistant Insulation
SJO	SJ with Oil-Resistant Jacket
SJ00	SJO with Oil-Resistant Insulation
SJT	Service Junior Thermoplastic
SJTO	SJT with Oil-Resistant Jacket
SJTO0	SJTO with Oil-Resistant Insulation
SO	Service with Oil-Resistant Jacket
SO0	SO with Oil-Resistant Insulation
SP-1	Service Parallel — 1/32" Insulation
SP-2	Service Parallel — 3/64" Insulation
SP-3	Service Parallel — 1/16" Insulation
SPE-1	Service Parallel Elastomer — 1/32" Insulation
SPE-2	Service Parallel Elastomer — 3/64" Insulation
SPE-3	Service Parallel Elastomer — 1/16" Insulation
SPT-1	Service Parallel Thermoplastic — 1/32" Insulation
SPT-2	Service Parallel Thermoplastic — 3/64" Insulation
SPT-3	Service Parallel Thermoplastic — 1/16" Insulation
ST	Service Thermoplastic
STO	ST with Oil-Resistant Jacket
ST00	STO with Oil-Resistant Insulation
SV	Service Vacuum
SVE	Service Vacuum Elastomer
SVEO	SVE with Oil-Resistant Jacket
SVE00	SVEO with Oil-Resistant Insulation
SVO	SV with Oil-Resistant Jacket
SV00	SVO with Oil-Resistant Insulation
SVT	Service Vacuum Thermoplastic
SVTO	SVT with Oil-Resistant Jacket
SVTO0	SVTO with Oil-Resistant Insulation
TPT	Tinsel Parallel Thermoplastic
TST	Tinsel Service Thermoplastic
XTW	Decorative Lighting Thermoplastic Parallel

NOTE: Service parallel types—wall thickness for integral construction.

Elastomer is a thermoplastic material with elastomeric properties similar to rubber.

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### Construction and Rating

Cord Type*	AWG Size Range	No. of Cond.	Conductor Insulation Material and Min. Average Thickness (inches)	Jacket Material and Min. Average Thickness** (inches)	Temperature Rating (°C)†		Voltage Rating
					Standard	Other	
HPN	18 – 12	2 or 3††	.045 Rubber		90	105	300
HSJ	18 – 12	2, 3, 4	.030 Rubber††	.030 Rubber	90		300
HSJO	18 – 12	2, 3, 4	.030 Rubber▲	.030 Oil-Resistant Rubber	90		300
S	18 – 2	2 or more	.030 Rubber▲	.060 Rubber▲	60	75, 90	600
SE	18 – 2	2 or more	.030 Elastomer	.060 Elastomer	105		600
SEO	18 – 2	2 or more	.030 Elastomer	.060 Elastomer	105		600
SJ	18 – 10	2, 3, 4, 5	.030 Rubber♦	.030 Rubber	60	75, 90	300
SJE	18 – 10	2, 3, 4, 5	.030 Elastomer††	.030 Elastomer	105		300
SJEO	18 – 10	2, 3, 4, 5	.030 Elastomer	.030 Elastomer	105		300
SJO	18 – 10	2, 3, 4, 5	.030 Rubber♦	.030 Oil-Resistant Rubber	60	75, 90, 105	300
SJT	18 – 10	2, 3, 4, 5	.030 Plastic♦	.030 Plastic	60	75, 90, 105	300
SJTO	18 – 10	2, 3, 4, 5	.030 Plastic♦	.030 Plastic	60	75, 90, 105	300
SO	18 – 2	2 or more	.030 Rubber▲	.060 Oil-Resistant Rubber▲	60	75, 90	600
SP-1	18	2 or 3††	.030 Rubber		60		300
SP-2	18 – 16	2 or 3††	.045 Rubber		60		300
SP-3	18 – 12	2 or 3††	.060 Rubber▲		60		300
SPT-1	18	2 or 3††	.030 Plastic		60	75, 90, 105	300
SPT-2	18 – 16	2 or 3††	.045 Plastic		60	75, 90, 105	300
SPT-3	18 – 10	2 or 3††	.060 Plastic▲		60	75, 90, 105	300
ST	18 – 2	2 or more	.030 Plastic▲	.060 Plastic▲	60	75, 90, 105	600
STO	18 – 2	2 or more	.030 Plastic▲	.060 Plastic▲	60	75, 90, 105	600
SV	18	2 or 3††	.015 Rubber	.030 Rubber	60	75, 90	300
SVE	18 – 17	2 or 3††	.015 Elastomer	.030 Elastomer	105		300
SVEO	18 – 17	2 or 3††	.015 Elastomer	.030 Elastomer	105		300
SVO	18	2 or 3††	.015 Rubber	.030 Oil-Resistant Rubber	60	75, 90	300
SVT	18 – 17	2 or 3††	.015 Plastic	.030 Plastic	60	75, 90, 105	300
SVTO	18 – 17	2 or 3††	.015 Plastic	.030 Plastic	60	75, 90, 105	300
TPT	27 (Tinsel)	2	.030 Plastic		60		300
TST	27 (Tinsel)	2	.015 Plastic	.030 Rubber	60		300

\* Types SVO, SVTO, SJO, SJTO, SO, STO and HSJO have jackets which are also recognized for oil resistance at maximum temperature of 60°C. Types SJ, SJO, SJT, SJTO, S, SO, ST and STO may also be made for outdoor use and will be indicated by adding a "W" suffix to the cord type. Similarly, types SJ, SJTO, SJO, SJT, S, SO, ST and STO may also be made in water-resistant grades with "Water-Resistant" printed on the jacket. 3-wire SJT may be made in special low-leakage constructions for medical equipment cords.

\*\* Where no jacket is shown, the construction is integral or flat style with insulation also serving as jacket.

† For cordage ratings higher than 60°C, the temperature limit is printed on the outside of the jacket. This does not apply to heater cordage type HPN, rated 90°C, or 105°C.

†† Recognized in three conductors when third or center conductor (with Green or Green/Yellow stripe) is used for equipment grounding.

▲ Insulation and jacket thickness depend on cordage size. Thickness as shown are for 18 and 16 AWG.

♦ Insulation and jacket thickness depend on cordage size.  
No. 12 AWG requires .030" conductor insulation thickness and .045" jacket thickness.  
No. 10 AWG requires .045" conductor insulation thickness and .060" jacket thickness.

The term Elastomer refers to thermoplastic elastomer.