

Thermocouple Wire - Duplex Insulated

Iron-Constantan Duplex ANSI Type J

ANSI Color Code: Positive Wire, White; Negative Wire, Red; Overall, Brown

NEWPORT Electronics does not use reprocessed PFA, FEP, or PVC in manufacturing thermocouple wire.

| Insulation ¹ | Model # | AWG | Type Wire | Insulation | | Max. Temp | | Nominal Size | Wt.† |
|-------------------------|-----------|-----|--------------|------------------|-------------|-----------|-------------|--------------|----------|
| | | | | Conductor | Overall | °F | °C | | lb/1000' |
| Ceramic** | XC-J-14 | 14 | Solid | | | 1100 | 590 | .140 x .200 | 38 |
| | XC-J-20 | 20 | | Nextel Ceramic | | 900 | 480 | .135 x .190 | 16 |
| | XT-J-20 | 20 | | | | | | .105 x .155 | 15 |
| | XL-J-20 | 20 | | | | | | .095 x .135 | 14 |
| | XC-J-24 | 24 | | | | 700 | 370 | .115 x .175 | 12 |
| | XT-J-24 | 24 | | | | | | .088 x .132 | 11 |
| | XL-J-24 | 24 | | | | | | .078 x .116 | 10 |
| Silica* | XS-J-14 | 14 | Solid | Silica | | 1100 | 590 | .140 x .200 | 35 |
| | XS-J-20 | 20 | | | | 900 | 480 | .105 x .155 | 12 |
| | XS-J-24 | 24 | | <u> </u> | | 700 | 370 | .088 x .132 | 10 |
| High Temp. | HH-J-20 | 20 | Solid | High Temp. Glass | | 900 | 480 | .060 x .105 | 9 |
| Glass** | HH-J-24 | 24 | Solid | | | 700 | 370 | .055 x .090 | 5 |
| | GG-J-14 | 14 | Solid | | | | 480 | .060 x .095 | 9 |
| | GG-J-20 | 20 | Solid | | | 900 | | .060 x .100 | 9 |
| | GG-J-20S | 20 | 7 X 28 | Glas | s Braid | | | .050 x .080 | 5 |
| Glass | GG-J-24 | 24 | Solid | | | | 370 | .050 x .085 | 5 |
| Glass | GG-J-24S | 24 | 7 X 32 | | | 100 | 570 | .045 x .075 | 4 |
| | GG-J-28 | 28 | Solid | Glass Wrap | Glass Braid | 700 | 370 | .040 x .055 | 3 |
| | GG-J-30 | 30 | Solid | | | 600 | 320 | .037 x .050 | 3 |
| | GG-J-36 | 36 | Solid | | | | | .033 x .045 | 2 |
| PFA Glass | TG-J-30 | 30 | | PFA | Glass Braid | 500 | 260 | .034 x .047 | 2 |
| | TG-J-36 | 36 | Solid | | | | | .028 x .038 | 2 |
| | TG-J-40 | 40 | | | | | | .026 x .035 | 2 |
| | TT-J-20 | 20 | Solid | | 500 | 260 | .068 x .116 | 11 | |
| | TT-J-20S | 20 | 7 X 28 | 1 | | | .073 x .126 | 11 | |
| PFA | TT-J-22S | 22 | 7 X 30 | PFA | | | .065 x .133 | 9 | |
| High Per- | TT-J-24 | 24 | Solid | | | | .056 x .093 | 6 | |
| formance | TT-J-24S | 24 | 7 X 32 | | | | .063 x .102 | 6 | |
| | TT-J-30++ | 30 | Solid | | | | .024 x .040 | 2 | |
| | TT-J-36++ | 36 | Solid | | | | .019 x .030 | 2 | |
| | TT-J-40++ | 40 | Solid | | | | .017 x .026 | 2 | |
| FEP | FF-J-20 | 20 | Solid | FEP | | 392 | 200 | .068 x .116 | 11 |
| | FF-J-24 | 24 | | <u> </u> | | | | .056 x .092 | 5 |
| Polyvinyl | PR-J-24 | 24 | Solid | Polyvinyl | Rip Cord*** | 221 1 | 105 | .050 x .085 | 5 |
| | PR-J-24S | 24 | 7 X 32 | | Polyvinyl | | | .082 x .134 | 5 |

¹ Additional Type J insulated wires are available. See Fused Tape Insulated **TFE-J** and **KK-J** Series.

+Weight of spool and wire rounded up to the next highest lb. (does not include packing material).

††Overall color clear

*Has color tracers on jacket and conductors.

**Has trace thread in Positive leg, Negative leg is red, overall has trace thread.

*** Two insulated leads bonded together, but with no overjacket.

Some wires available with Special Limits of Error; consult Sales for pricing and availability.

| Ceramic Weave Note: | | | | | |
|---------------------|--|--|--|--|--|
| XC | standard ceramic insulation with maximum insulation density. | | | | |
| ХТ | more tightly woven with reduced insulation density. | | | | |
| XL | loosely woven with the minimum insulation density. | | | | |



NEWPORT can cover any insulated wire in our handbook with metal overbraiding to protect against wear and abrasion. **Overbraiding** adds durability and electrical shielding for improved performance.

| Part Number | Description |
|--------------|---|
| GG-J-24-50 | 50 ft, Glass Insulated, 24 AWG, Type J |
| | |
| GG-J-20-1000 | 1000 ft, Glass Insulated, 20 AWG, Type J |
| TG-J-36-1000 | 1000 ft, PFA Glass, 36 AWG, Type J |
| TT-J-24-100 | 100 ft, PFA Insulated, 24 AWG, Type J |
| TT-J-24S-500 | 500 ft, PFA Insulated, Stranded 24 AWG, Type J |
| PR-J-24-100 | 100 ft, Polyvinyl (Rip Cord)***, 24 AWG, Type J |

(1) (2) (3)

HH **-J-** 20 **-** 25

Option Descriptions

(1) Insulation

Select

HH for High Temp Glass (20 & 24 AWG Only)
GG for Glass
TG for PFA and Glass
TT for Neoflon PFA (High Performance)
FF for Neoflon FEP (20 & 24 AWG Only)
PP for Polyvinyl (24 Gauge Stranded Only)
PR for Polyvinyl Rip Cord (24 AWG Only)
XC for Ceramic(14 20 24 AWG Only)
XT for Ceramic(20 & 24 AWG Only)
XL for Ceramic(20 & 24 AWG Only)
XS for Silica (14 20 24 AWG Only)

(2) Gage

Select
20 for 20 AWG
20S for 20 AWG (Stranded)
24 for 24 AWG
24S for 24 AWG (Stranded)
28 for 28 AWG
30 for 30 AWG
36 for 36 AWG
40 for 40 AWG

(3) Spool Length

Select for 25 Feet for 50 Feet for 100 Feet for 200 Feet for 500 Feet for 1000 Feet

NOTE: All combinations may not be valid, check spec sheet for valid part numbers.