



## CONTACT

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(-40°C) XLPE

## STANDARDS

**Product** CSA C22.2 N° 131; CSA C22.2 N° 174

Nexans TECK90 Cables are intended for use in various primary and secondary industries, including chemical processing plants, refineries and general factory environments.

Even in the most demanding industrial and resource industry applications, Nexans TECK90 cables have proven to have a superior service and maintenance record.

TECK90 Cables utilize low acid gas, low flame spread PVC jacket compounds to ensure maximum safety to personnel and equipment in the event of fire.

## Applications

TECK90 Cables, originally developed for use in Canadian mines, are flexible, resistant to mechanical abuse, corrosion resistant, compact and reliable. They are suitable for a wide range of applications, including ALL hazardous locations - Class I, Division 1 and 2; Class II, Division 1 and 2; and Class III.

**Meets the FT4 flame spread test.**

**Limited Smoke Zero Halogen is recognized by CSA C22.2 No 2556 with markings ST1-FT4 HAL FREE. This option is available upon request.**

Industries such as pulp and paper, chemical, petroleum and other primary and secondary manufacturing industries have used TECK90 Cables, particularly in areas where cables are subject to the risk of mechanical damage and chemical attack.

Commercial applications for TECK90 Cables include apartment buildings and commercial complexes.

TECK90 Cables can be relocated easily because they are rugged and flexible. They can be used in both dry and wet locations in open wiring, in ventilated, non-ventilated and ladder-type cable troughs, in ventilated flexible cableways, and for direct burial.

TECK90 Cables are also suitable for service entrance installations - above and below ground.

## Highlights

Nexans TECK90 Cables are:

- Available from stock
- Versatile & Flexible
- Resistant to Mechanical Abuse and Corrosion
- Compact and Reliable
- 90°C to -40°C
- Low Acid Gas (AG14)
- Inner and outer jackets are sunlight resistant
- LEAD FREE & RoHS compliant
- "HL" and "FT4" Rated per CSA
- **ST1 rating available upon request**

## CHARACTERISTICS

### Construction characteristics

|                    |        |
|--------------------|--------|
| Conductor Material | Copper |
| Insulation         | XLPE   |
| Insulation Colour  | Black  |

### Electrical characteristics

|                           |      |
|---------------------------|------|
| Maximum operating voltage | 1 kV |
|---------------------------|------|

### Usage characteristics

|                                  |        |
|----------------------------------|--------|
| Maximum operating temperature    | 90 °C  |
| Minimum installation temperature | -40 °C |

## TECK90 1 KV

| Nexans Ref. | Name                          | Cond. Dia. (mm) | Cond. Dia. [inches] | Size      | # of Co nd. | Bare Grd (AWG ) | Cabl e Dia. [mm] | Cable Dia. [inches] | Approx. Net Weight [kg/km] | Approx. Net Weight [lb/kft] | Cu Cont en t [kg/km] | Cu Conte nt [lb/kft] |
|-------------|-------------------------------|-----------------|---------------------|-----------|-------------|-----------------|------------------|---------------------|----------------------------|-----------------------------|----------------------|----------------------|
| 12000213    | 2C12(7)<br>TECK90<br>1KV      | 2.32            | 0.09                | 12<br>AWG | 2           | 14              | 20.2             | 0.8                 | 405                        | 271                         | 80                   | 54                   |
| 12000302    | 3C12(7)<br>TECK90<br>1KV      | 2.32            | 0.09                | 12<br>AWG | 3           | 14              | 20.9             | 0.82                | 441                        | 296                         | 111                  | 74                   |
| 12000301    | 3C10(7)<br>TECK90<br>1KV      | 2.95            | 0.12                | 10<br>AWG | 3           | 12              | 22.6             | 0.89                | 567                        | 380                         | 176                  | 118                  |
| 12000304    | 2C8(7)<br>TECK90<br>1KV       | 3.71            | 0.15                | 8<br>AWG  | 2           | 10              | 23.5             | 0.93                | 606                        | 406                         | 203                  | 136                  |
| 12000075    | 3C8(7)<br>TECK90<br>1KV       | 3.71            | 0.15                | 8<br>AWG  | 3           | 10              | 23.9             | 0.94                | 730                        | 490                         | 281                  | 189                  |
| 12000310    | 4C8(7)<br>TECK90<br>1KV       | 3.71            | 0.15                | 8<br>AWG  | 4           | 10              | 26.1             | 1.03                | 867                        | 581                         | 358                  | 240                  |
| 12013455    | 3C8(7)<br>TECK90<br>1KV x300m | 3.71            | 23.81               | 8<br>AWG  | 3           | 10              | 23.9             | 0.94                | 730                        | 489                         | 281                  | 189                  |
| 12000082    | 2C6(7)<br>TECK90<br>1KV       | 4.67            | 0.18                | 6<br>AWG  | 2           | 8               | 26.8             | 1.06                | 811                        | 544                         | 323                  | 217                  |
| 12000076    | 3C6(7)<br>TECK90<br>1KV       | 4.67            | 0.18                | 6<br>AWG  | 3           | 8               | 28.6             | 1.13                | 959                        | 644                         | 446                  | 299                  |
| 12013456    | 3C6(7)<br>TECK90<br>1KV x300m | 4.67            | 0.18                | 6<br>AWG  | 3           | 8               | 28.6             | 1.13                | 959                        | 644                         | 446                  | 299                  |
| 12000110    | 4C6(7)<br>TECK90<br>1KV       | 4.67            | 1.202               | 6<br>AWG  | 4           | 8               | 32.5             | 1.28                | 1247                       | 837                         | 569                  | 382                  |

| Nexans Ref. | Name                       | Cond. Dia. (mm) | Cond. Dia. [inches] | Size       | # of Co. nd. | Bare Grd (AWG ) | Cabl e Dia. [mm] | Cable Dia. [inches] | Approx. Net Weight [kg/km] | Approx. Net Weight [lb/kft] | Cu Conten t [kg/km] | Cu Conte nt [lb/kft] |
|-------------|----------------------------|-----------------|---------------------|------------|--------------|-----------------|------------------|---------------------|----------------------------|-----------------------------|---------------------|----------------------|
| 12000502    | 4C4(7)<br>TECK90<br>1KV    | 5.89            | 0.23                | 4<br>AWG   | 4            | 8               | 34.3             | 1.35                | 1669                       | 1120                        | 861                 | 578                  |
| 12000077    | 3C4(7)<br>TECK90<br>1KV    | 5.89            | 1.24                | 4<br>AWG   | 3            | 8               | 32.1             | 1.26                | 1375                       | 922                         | 665                 | 446                  |
| 12000303    | 3C3(7)<br>TECK90<br>1KV    | 6.60            | 0.26                | 3<br>AWG   | 3            | 6               | 33.7             | 1.33                | 1526                       | 1024                        | 866                 | 581                  |
| 12000256    | 4C3(7)<br>TECK90<br>1KV    | 6.60            | 1.42                | 3<br>AWG   | 4            | 6               | 36.6             | 1.44                | 2022                       | 1357                        | 1114                | 748                  |
| 12000078    | 3C2(7)<br>TECK90<br>1KV    | 7.42            | 0.29                | 2<br>AWG   | 3            | 6               | 35.3             | 1.39                | 1896                       | 1272                        | 1057                | 709                  |
| 12000111    | 4C2(7)<br>TECK90<br>1KV    | 7.42            | 37.63               | 2<br>AWG   | 4            | 6               | 38.1             | 1.5                 | 2351                       | 1578                        | 1369                | 919                  |
| 12000079    | 3C1(18)<br>TECK90<br>1KV   | 8.43            | 0.33                | 1<br>AWG   | 3            | 6               | 39.3             | 1.55                | 2291                       | 1538                        | 1304                | 875                  |
| 12000080    | 3C1/0(18)<br>TECK90<br>1KV | 9.47            | 0.37                | 1/0<br>AWG | 3            | 6               | 42               | 1.65                | 2757                       | 1850                        | 1609                | 1080                 |
| 12000081    | 3C2/0(18)<br>TECK90<br>1KV | 10.64           | 0.42                | 2/0<br>AWG | 3            | 6               | 43.9             | 1.73                | 3222                       | 2165                        | 1997                | 1340                 |
| 12000104    | 4C2/0(18)<br>TECK90<br>1KV | 10.64           | 0.42                | 2/0<br>AWG | 4            | 6               | 47.4             | 1.87                | 4034                       | 2711                        | 2621                | 1759                 |
| 12000098    | 3C3/0(18)<br>TECK90<br>1KV | 11.94           | 0.47                | 3/0<br>AWG | 3            | 4               | 46.6             | 1.83                | 3827                       | 2568                        | 2558                | 1717                 |
| 12000452    | 4C3/0(18)<br>TECK90<br>1KV | 11.94           | 0.47                | 3/0<br>AWG | 4            | 4               | 49.8             | 1.96                | 5053                       | 3391                        | 3345                | 2245                 |
| 12000099    | 3C4/0(18)<br>TECK90<br>1KV | 13.41           | 0.53                | 4/0<br>AWG | 3            | 4               | 48.9             | 1.93                | 4733                       | 3176                        | 3173                | 2130                 |
| 12000456    | 4C4/0(18)<br>TECK90<br>1KV | 13.41           | 0.53                | 4/0<br>AWG | 4            | 4               | 54.4             | 2.14                | 6239                       | 4187                        | 4166                | 2796                 |
| 12000100    | 3C250(36)<br>TECK90<br>1KV | 14.61           | 0.58                | 250<br>MCM | 3            | 4               | 57.2             | 2.25                | 5700                       | 3825                        | 3716                | 2494                 |
| 12000101    | 3C350(36)<br>TECK90<br>1KV | 17.30           | 0.68                | 350<br>MCM | 3            | 3               | 62.5             | 2.46                | 7426                       | 4984                        | 5171                | 3470                 |

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|-------------|----------------------------|-----------------|---------------------|------------|-------------|-----------------|------------------|---------------------|----------------------------|-----------------------------|---------------------|----------------------|
| 12000217    | 4C350(36)<br>TECK90<br>1KV | 17.30           | 0.68                | 350<br>MCM | 4           | 3               | 67.4             | 2.65                | 9522                       | 6390                        | 6813                | 4572                 |
| 12000506    | 1C350(36)<br>TECK90<br>1KV | 17.30           | 36.80               | 350<br>MCM | 1           | 3               | 36.7             | 1.44                | 2842                       | 1907                        | 2062                | 1384                 |
| 12000507    | 1C500(36)<br>TECK90<br>1KV | 20.65           | 0.81                | 500<br>MCM | 1           |                 | 40.3             | 1.59                | 3742                       | 2511                        | 2864                | 1922                 |
| 12000454    | 4C500(36)<br>TECK90<br>1KV | 20.65           | 2.905               | 500<br>MCM | 4           | 3               | 76.7             | 3.02                | 12732                      | 8545                        | 9622                | 6458                 |
| 12000102    | 3C500(36)<br>TECK90<br>1KV | 20.65           | 68.20               | 500<br>MCM | 3           | 3               | 70               | 2.76                | 9932                       | 6666                        | 7278                | 4885                 |
| 12000794    | 1C750(58)<br>TECK90<br>1KV | 25.35           | 1.00                | 750<br>MCM | 1           |                 | 46               | 1.81                | 5429                       | 3644                        | 4189                | 2811                 |

## MARKING AND IDENTIFICATION

The inner jackets of Nexans TECK90 cables are printed: SUN RES.

The outer jackets of Nexans TECK90 cables are printed: (mon/year) NEXANS TECK90 XLPE (-40°C) CSA LL19376 F HL FT4 AG14 SUN RES along with conductor size, number of conductors and sequential metre marking.

### **TECK90 1C**

Conductor Identification: Black

### **TECK90 2C**

Conductor Identification: Black, White

- 14 AWG to 2 AWG: Coloured Insulation
- 1 AWG to 500 kcmil: Coloured Stripes

### **TECK90 3C**

Conductor Identification:

Red, Black, Blue

- 14 AWG to 2 AWG: Coloured Insulation
- 1 AWG to 500 kcmil: Coloured Stripes

### **TECK90 4C**

Conductor Identification:

Red, Black, Blue, White

- 14 AWG to 2 AWG: Coloured Insulation
- 1 AWG to 500 kcmil: Coloured Stripes

## SELLING AND DELIVERY INFORMATION

### Caution Notice

In case of fire, well maintained early warning smoke detectors will give an alarm long before non-metallic coverings become combustible.

However, in spite of the widespread and long-standing use of PVC in residential and commercial buildings, all purchasers of PVC insulated/ jacketed products should be aware of the following:

- Non-metallic coverings of electrical cables can burn and may transmit fire when ignited.
- Burning non-metallic coverings may emit acid gases which are toxic and may generate dense smoke.
- Emission of acid gases may corrode metal in the vicinity; e.g. sensitive instruments and reinforcing rods in cement.