

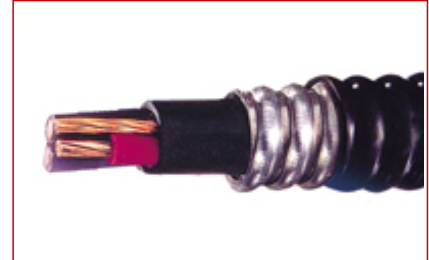
FIREX®-II TECK90 (XLPE) -40°C 600 V Composite Power and Control

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

Description

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

FIREX®-II 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

FIREX®-II 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.

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

Commercial applications for FIREX®-II TECK90 Cables include apartment buildings and commercial complexes.

FIREX®-II 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 FIREX®-II TECK90 Cables are:

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

Standards

National CSA C22.2 N° 131

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Marking and Identification

The inner jackets of Nexans FIREX®-II TECK90 cables are printed: SUN RES.

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

Conductor Identification:

Power Conductors: Red, Black, Blue

Control Conductors: Black with Number Coding

Characteristics

Construction characteristics	
Conductor material	Copper
Electrical characteristics	
Maximum operating voltage	600 V
Usage characteristics	
Maximum operating temperature	90 °C

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Composite TECK90 3C Power and 3C 14 or 12 AWG 600 V Control Conductors

Conductor Size			Power Conductor Insulation Thickness		Inner Jacket Thickness		Nominal Diameters						Approximate Copper Content kg/km
Power AWG	Control AWG	Bonding AWG	inches	mm	inches	mm	Inner Jacket		Armour		Outer Covering		
							inches	mm	inches	mm	inches	mm	
12	14	14	0.030	0.76	0.060	1.52	0.591	15.00	0.831	21.10	0.929	23.59	169
10	14	12	0.030	0.76	0.060	1.52	0.596	15.14	0.836	21.23	0.936	23.77	234
10	12	12	0.030	0.76	0.060	1.52	0.665	16.90	0.905	23.00	1.003	25.49	268
8	14	10	0.045	1.14	0.060	1.52	0.715	18.16	0.955	24.26	1.053	26.75	339
8	12	10	0.045	1.14	0.060	1.52	0.755	19.17	1.010	25.27	1.159	29.43	373
6	14	8	0.060	1.52	0.080	2.03	0.900	22.86	1.175	29.85	1.288	32.72	504
6	12	8	0.060	1.52	0.080	2.03	0.914	23.21	1.189	29.82	1.318	33.47	538
4	14	8	0.060	1.52	0.080	2.03	0.904	22.96	1.179	29.57	1.308	33.22	723
4	12	8	0.060	1.52	0.080	2.03	0.904	22.96	1.179	29.57	1.308	33.22	757
3	14	6	0.060	1.52	0.080	2.03	0.964	24.48	1.239	31.09	1.368	34.74	924
3	12	6	0.060	1.52	0.080	2.03	0.964	24.48	1.239	31.09	1.368	34.74	958
2	14	6	0.060	1.52	0.080	2.03	1.026	26.05	1.301	32.66	1.430	36.31	1115
2	12	6	0.060	1.52	0.080	2.03	1.026	26.05	1.301	32.66	1.430	36.31	1149
1	14	6	0.080	2.03	0.080	2.03	1.182	30.03	1.457	36.64	1.586	40.29	1361
1	12	6	0.080	2.03	0.080	2.03	1.182	30.03	1.457	36.64	1.586	40.29	1396
1/0	14	6	0.080	2.03	0.080	2.03	1.263	32.08	1.538	38.69	1.667	42.34	1667
1/0	12	6	0.080	2.03	0.080	2.03	1.263	32.08	1.538	38.69	1.667	42.34	1701
2/0	14	6	0.080	2.03	0.080	2.03	1.348	34.23	1.623	40.84	1.772	44.49	2055
2/0	12	6	0.080	2.03	0.080	2.03	1.348	34.23	1.623	40.84	1.772	44.49	2089
3/0	14	4	0.080	2.03	0.080	2.03	1.450	36.82	1.725	43.13	1.854	47.08	2615
3/0	12	4	0.080	2.03	0.080	2.03	1.450	36.82	1.725	43.13	1.854	47.08	2650
4/0	14	4	0.080	2.03	0.080	2.03	1.567	39.80	1.872	47.17	2.051	52.09	3231
4/0	12	4	0.080	2.03	0.080	2.03	1.567	39.80	1.872	47.17	2.051	52.09	3265

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Composite TECK90 600 V Fittings and Cable Weight

Conductor Size			Ampacity (A) 30°C Ambient (Notes 2, 4)			Approximate Net Cable Weight		Fittings			
Power	Control	Bonding	60°C	75°C	90°C	lb/kft	kg/km	Appleton	T&B	CMP Products	Cooper Crouse-Hinds
AWG or Kcmil	AWG	AWG									
12 (Note 3)	14	14	20	20	20	380	566	TMC 5099	10466/ST050-466	TMC075A	TECK050-4
10 (Note 3)	14	12	30	30	30	414	616	TMC 5099	10466/ST050-466	TMC075A	TECK050-4
10 (Note 3)	12	12	30	30	30	442	658	TMC 75121	10467/ST075-467	TMC100A	TECK075-5
8	14	10	40	50	55	530	789	TMC 75121	10467/ST075-467	TMC100A	TECK075-5
8	12	10	40	50	55	558	883	TMC 75121	10468/ST075-468	TMC100A	TECK075-6
6	14	8	55	65	75	700	1042	TMC 100138	10469/ST100-469	TMC125A	TECK100-7
6	12	8	55	65	75	843	1254	TMC 100138	10469/ST100-469	TMC125A	TECK100-7
4	14	8	70	85	95	985	1466	TMC 100138	10469/ST100-469	TMC125A	TECK100-7
4	12	8	70	85	95	1001	1490	TMC 100138	10469/ST100-469	TMC125A	TECK100-7
3	14	6	85	100	115	1155	1719	TMC 100138	10469/ST100-469	TMC125A	TECK100-7
3	12	6	85	100	115	1172	1744	TMC 100138	10469/ST100-469	TMC125A	TECK100-7
2	14	6	95	115	130	1322	1967	TMC 125163	10470/ST125-470	TMC125A	TECK125-8
2	12	6	95	115	130	1339	1992	TMC 125163	10470/ST125-470	TMC125A	TECK125-8
1	14	6	110	130	145	1609	2394	TMC 125163	10550/ST125-550	TMC150A	TECK125-8
1	12	6	110	130	145	1626	2420	TMC 125163	10550/ST125-550	TMC150A	TECK125-8
1/0	14	6	125	150	170	1823	2781	TMC 125188	10471/ST125-471	TMC150A	TECK125-10
1/0	12	6	125	150	170	1885	2805	TMC 125188	10471/ST125-471	TMC150A	TECK125-10
2/0	14	6	145	175	195	2218	3300	TMC 125188	10471/ST125-471	TMC200SA	TECK125-10
2/0	12	6	145	175	195	2235	3326	TMC 125188	10471/ST125-471	TMC200SA	TECK125-10
3/0	14	4	165	200	225	2667	3969	TMC 150200	10472/ST150-472	TMC200SA	TECK125-10
3/0	12	4	165	200	225	2683	3993	TMC 150200	10472/ST150-472	TMC200SA	TECK125-10
4/0	14	4	195	230	260	3294	4902	TMC 150220	10473/ST150-473	TMC200A	TECK150-12
4/0	12	4	195	230	260	3312	4929	TMC 150220	10473/ST150-473	TMC200A	TECK150-12

Notes:

- 1) Where stated, "nominal" and "approximate" values are provided for information purposes only and are subject to standard manufacturing tolerances.
- 2) Based on 2012 CEC Table 2, for not more than 3 current carrying conductors in a cable or raceway.
- 3) The overcurrent protection shall not exceed 20 amperes for 12 AWG, and 30 amperes for 10 AWG after any corrections factors for ambient temperature and number of conductors have been applied (2012 CEC Rule 14-104(2)), or as provided for by other Rules of the 2012 CEC.
- 4) The maximum conductor temperature (used to determine the maximum conductor ampacity) shall be based on the lowest temperature rating of the electrical equipment, any wire connector, or cable (2012 CEC Rule 4-006).

Selling 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.

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- Emission of acid gases may corrode metal in the vicinity; e.g. sensitive instruments and reinforcing rods in cement.