

Okoguard-Okolon® TS-CPE Type RHH or RHW-2, VW-1, FT-4, CSA RW-90

UL and CSA 2000V Power Cable

Copper Conductors/90°C Wet or Dry

For Cable Tray Use - Sunlight Resistant



A Uncoated Copper Conductor
B Composite Okoguard—Okolon TS-CPE Insulation

Composite Insulation

Okoguard-Okolon® TS-CPE is Okonite's trade name for its composite insulation system consisting of a layer of EPR and covered with a chlorinated polyethylene (CPE) thermoset compound. The combination of the two materials provides a dielectric which has excellent resistance to heat, mechanical abuse, flame, weathering, most oils, acids and alkalis.

The advantages of Okoguard EPR, with a proven track record of over 50 years as a medium voltage insulation, are now offered in low voltage cables. Okolon TS-CPE is Okonite's trade name for its chlorinated polyethylene (CPE) thermoset compound.

Applications

Okoguard-Okolon TS-CPE 2000 Volt power cables are recommended for use in all low voltage circuits where uninterrupted service is essential. They can be installed in wet or dry locations, indoors or outdoors in conduit, underground ducts, approved raceways. These cables may also be installed in cable tray (size 1/0 AWG kcmil and larger per NEC 392.10(B)(1)).

Specifications

Conductors: Uncoated soft copper per ASTM B-3. Solid per ASTM B-3. Sizes smaller than #8 are compress stranded per ASTM B-8. Sizes #8 and larger are compact stranded per ASTM B-496.

Composite Insulation: Meets or exceeds all requirements of ICEA S-95-658, NEMA WC-70 and UL Standard 44.

Listed by Underwriters Laboratories, Inc. as Type RHH or RHW-2, VW-1. Sizes 1/0 AWG and larger are also marked sunlight resistant, for use in cable tray. All sizes meet FT-1. Sizes 1/0 and larger meet FT-4.

Listed by CSA as RW-90, -40°C, FT1 (1/0 and larger: FT4), sunlight resistant.

Product Features

- Sizes 1/0 AWG and larger pass the Vertical Tray Flame Test requirements of UL 1581 for use in cable tray.
- Passes the IEEE 383-1974 Vertical Tray Flame Test (size #8 AWG and larger).
- Passes the IEEE 1202 Vertical Tray Flame Test (sizes 1/0 AWG and larger).
- Passes the ICEA T-29-520 (210,000 BTU/hr.) Vertical Tray Flame Test (sizes 1/0 AWG and larger).
- Extreme heat resistance
90°C continuous rating, wet or dry
130°C emergency overload rating
250°C short circuit rating
- Exceptional resistance to deformation at high temperature.
- Stable electrical properties.
- Low SIC and power factor.
- Low moisture absorption.
- Mechanically rugged.
- Resistant to weather, most oils, acids and alkalis.
- Smaller diameter than RHW jacketed cables.
- More flexible, easier to install, terminate or splice than XLPE insulation.
- OSHA acceptable.
- UL and CSA Listed.

Composite Insulation Thickness (mils)		
Conductor (AWG/kcmil)	Okoguard	Okolon TS-CPE
14-10	45	15
9	55	15
8-2	55	30
1-4/0	65	45
250-500	75	65
750-1000	90	65

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Product Data

Section 3: Sheet 10

Catalog Number	Conductor Size AWG or kcmil	Number of Strands	Composite Insulation Thickness - mils	Composite Insulation Thickness - mm	Approx. O.D. - Inches	Approx. O.D. - mm	Approx. Net Weight lbs./1000'	Approx. Ship Weight lbs./1000'	90°C Wet (1)* NEC Ampacity	75°C Wet (1)* NEC Ampacity	ICEA Ampacity (2)
113-24-2061	14	1	60	1.52	0.19	4.83	28	33	15	15	24
▲ 113-24-2071	14	7	60	1.52	0.20	5.08	30	35	15	15	24
113-24-2091	12	1	60	1.52	0.21	5.33	38	43	20	20	30
▲ 113-24-2101	12	7	60	1.52	0.22	5.59	40	45	20	20	30
113-24-2121	10	1	60	1.52	0.23	5.84	52	57	30	30	42
▲ 113-24-2131	10	7	60	1.52	0.24	6.10	55	60	30	30	42
113-24-2171	9	7	70	1.79	0.28	7.11	70	75	30	30	48
▲ 113-24-2191	8	7	85	2.16	0.32	8.13	90	101	55	50	55
▲ 113-24-2221	6	7	85	2.16	0.35	8.89	126	137	75	65	75
▲ 113-24-2251	4	7	85	2.16	0.40	10.26	180	191	95	85	97
▲ 113-24-2311	2	7	85	2.16	0.45	11.43	265	278	130	115	130
113-24-2331	1	19	110	2.79	0.54	13.72	348	367	150	130	156
▲ 113-24-2351	1/0	19	110	2.79	0.57	14.48	424	442	170	150	179
▲ 113-24-2371	2/0	19	110	2.79	0.61	15.49	517	537	195	175	204
113-24-2391	3/0	19	110	2.79	0.66	16.76	633	657	225	200	242
▲ 113-24-2411	4/0	19	110	2.79	0.71	18.03	777	813	260	230	278
▲ 113-24-2431	250	37	140	3.56	0.83	21.08	957	1004	290	255	317
▲ 113-24-2471	350	37	140	3.56	0.92	23.37	1286	1355	350	310	384
▲ 113-24-2531	500	37	140	3.56	1.04	26.42	1773	1915	430	380	477
▲ 113-24-2591	750	61	155	3.94	1.24	31.50	2618	2805	535	475	598
113-24-2651	1000	61	155	3.94	1.38	35.05	3423	3674	615	545	689

Okonite's web site, www.okonite.com contains the most up to date information.

▲ **Authorized stock item.** Available from our Customer Service Centers.

To order a color other than black, change the last digit of the catalog number as follows:			
White	2	Orange	5
Red	3	Blue	6
Green	4	Yellow	7
Example: To order #14 - Red, the catalog number would be 113-24-2073.			

Ampacities

(1) Ampacities are based on Table 310.16 of the National Electrical Code for these 90°C rated conductors at an ambient temperature of 30°C. The 75°C wet column is provided for additional information.

The ampacities shown apply to open runs of cable, installation in any approved raceway, direct burial in the earth, or as aerial cable on a messenger. Derating for more than three current carrying conductors within a raceway is in accordance with NEC 310.15(C)(1).

(2) Based on three (3) conductors in a single enclosed or exposed conduit. Capacities based on 40°C air ambient using ICEA method. For 30°C ambient multiply values by 1.10; for 50°C multiply by 0.89. For other ambients or installation conditions refer to Okonite's Engineering Data Book EHB.

For ampacities in cable tray see NEC Section 392.80.

*Current limited to 15, 20 and 30 amps per Section 240.4(D)(3) of the NEC for #14, #12 and #10 AWG, respectively.