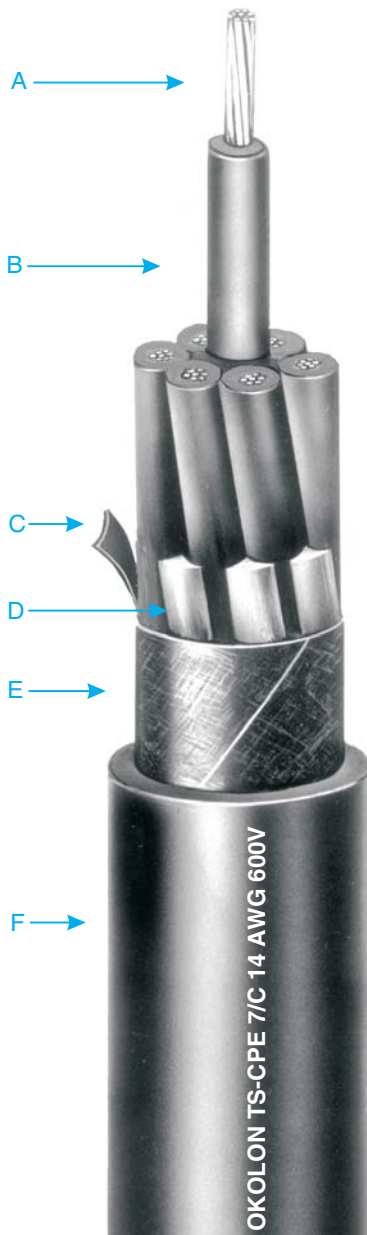




Okonite®-FMR® Okolon® TS-CPE

1000/2000 Volt Control Cable

Multiple Copper Conductors/90°C Rating
For Central Station Applications



- A Stranded Copper Conductors
- B Okonite-FMR Insulation
- C Marker Strip
- D Flame and Moisture Resistant Fillers
- E Cable Tape
- F Okolon TS-CPE Jacket

Insulation

Okonite-FMR is Okonite's trade name for its heat, moisture, flame and chemically resistant, mechanically rugged ethylene-propylene insulation compound. It is flame retardant and will pass both the 70,000 BTU/hour and 210,000 BTU/hour tray flame test. Its physical properties and flame retardancy permit its use without a jacket on the single conductors thus providing a substantially smaller overall diameter control cable.

The properties of Okonite-FMR insulation substantially enhance the well known features of ethylene propylene rubber insulations.

Overall Jacket

The overall Okolon TS-CPE jacket is a thermoset chlorinated polyethylene compound. This combination construction assures circuit security because of its high mechanical strength and excellent resistance to moisture, ozone, oil and most chemicals.

Applications

Okonite-FMR Control Cables are recommended for use in either power generating plants and in substations; designed especially for critical circuits where continuity of service is of prime importance. This premium quality control cable is recommended for wet or dry, ac or dc service at conductor temperatures to 90°C. They may be installed in conduits, ducts, cable troughs, trays, messenger supported, or directly buried in the earth.

Specifications

Conductors: Coated copper per ASTM B-33, Class B stranded per ASTM B-8.

Insulation: Okonite-FMR meets or exceeds the electrical and physical requirements of ICEA S-73-532.

Color Coding: Base colors and tracers as shown on reverse of Data Sheet.

Assembly: Conductors cabled using flame and moisture resistant fillers.

Overall Jacket: The Okolon TS-CPE compound meets or exceeds the requirements of ICEA S-73-532

Product Features

- Flame retardant - passes the IEEE 383 and 1202 flame test requirements. Also passes the ICEA T-29-520 (210,000 BTU/hr) flame test.
- Quality Assurance traceability available on special order.
- 90°C rated control cable, factory assembled for indoor or outdoor installation in cable trays, in raceways, direct burial in the earth, or supported by messenger wire.
- Mechanically rugged.
- Flexible, easy to install and terminate.
- Color coded conductors.
- Resistant to water, oil and most chemicals.
- Thermally stable at elevated temperatures.
- High insulation resistance, even at elevated temperatures.
- Small diameter, lightweight.

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Product Data Section 4: Sheet 25

Okonite - FMR - Insulation — 1000/2000V

Catalog Number	Conductor Size (AWG)	Number of Conductors	Insulation Thickness - mils	Jacket Thickness - mils	Jacket Thickness - mm	Approx O.D. - Inches	Approx O.D. - mm	Approx Net Weight (lbs/1000')	Approx Ship Weight (lbs/1000')	90°C Wet or Dry Ampacity (1)		
1000V												
202-14-2053	16 (7x) 1.31 mm ²	3	45	1.14	0.44	11.28	99	122	18			
202-14-2054		4	45	1.14	0.48	12.30	125	148	14			
202-14-2055		5	45 1.14 mm	45	1.14	0.53	13.39	155	178	14		
202-14-2057		7		60	1.52	0.60	15.24	223	247	13		
202-14-2059		9		60	1.52	0.70	17.76	278	310	13		
202-14-2062		12		60	1.52	0.78	19.92	342	381	9		
202-14-2069		19		80	2.03	0.96	24.27	526	581	9		
202-14-2087		37		80	2.03	1.27	32.26	910	1000	7		
2000V												
202-14-2152		14 (7x) 2.08 mm ²	2	45	1.14	0.45	11.36	99	122	25		
202-14-2153			3	45	1.14	0.47	12.05	120	143	25		
202-14-2154			4	45	1.14	0.52	13.16	177	200	20		
202-14-2155	5		45 1.14 mm	60	1.52	0.60	15.16	209	233	20		
202-14-2157	7			60	1.52	0.65	16.44	277	309	18		
202-14-2159	9			60	1.52	0.75	19.05	344	383	18		
202-14-2162	12			60	1.52	0.84	21.39	426	465	13		
202-14-2169	19			80	2.03	1.03	26.05	657	712	13		
202-14-2187	37			80	2.03	1.37	34.80	1161	1251	10		
202-14-2302	12 (7x) 3.33 mm ²		2	45	1.14	0.48	12.28	163	186	30		
202-14-2303			3	45	1.14	0.51	13.03	182	205	30		
202-14-2304			4	60	1.52	0.59	15.08	244	268	24		
202-14-2305		5	45 1.14 mm	60	1.52	0.64	16.26	298	330	24		
202-14-2307		7		60	1.52	0.70	17.82	357	389	21		
202-14-2309		9		60	1.52	0.81	20.70	447	486	21		
202-14-2312		12		80	2.03	0.96	24.36	604	659	15		
202-14-2319		19		80	2.03	1.12	28.33	855	935	15		
202-14-2337		37		80	2.03	1.50	38.10	1538	1681	12		
202-14-2452		10 (7x) 5.26 mm ²	2	45	1.14	0.53	13.50	208	232	40		
202-14-2453			3	60	1.52	0.60	15.16	260	284	40		
202-14-2454			4	60	1.52	0.65	16.55	322	354	32		
202-14-2455	5		45 1.14 mm	60	1.52	0.71	18.04	388	420	32		
202-14-2457	7			60	1.52	0.77	19.65	478	517	28		
202-14-2459	9			80	2.03	0.94	23.97	641	696	28		
202-14-2462	12			80	2.03	1.06	26.90	800	867	20		
202-14-2652	9 (19x) 6.63 mm ²			2	60	1.52	0.59	14.97	262	286	50	
202-14-2653				3	60	1.52	0.62	15.75	298	322	50	
202-14-2654			4	60	1.52	0.68	17.35	369	401	40		
202-14-2655			5	45 1.14 mm	60	1.52	0.74	18.80	452	491	40	
202-14-2657			7		60	1.52	0.81	20.64	557	596	35	
202-14-2659		9	80		2.03	0.99	25.16	797	852	35		
202-14-2662		12	80		2.03	1.11	28.27	940	1020	25		

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

Nuclear traceability available on special order.

(1) Ampacities are based on 90°C rated conductors at an ambient temperature of 30°C.

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Product Data Section 4: Sheet 25

Conductor Color Coding Sequence — Sizes 16 - 9 AWG

Conductor Number	Background or Base Color	Tracer Color
1	Black	
2	White	
3	Red	
4	Green	
5	Orange	
6	Blue	
7	White	Black
8	Red	Black
9	Green	Black
10	Orange	Black
11	Blue	Black
12	Black	White
13	Red	White
14	Green	White
15	Blue	White
16	Black	Red
17	White	Red
18	Orange	Red
19	Blue	Red
20	Red	Green
21	Orange	Green

Color Coding per
ICEA Method 1,
E-1

Alternate color code shall be used for greater than 21 conductor count.