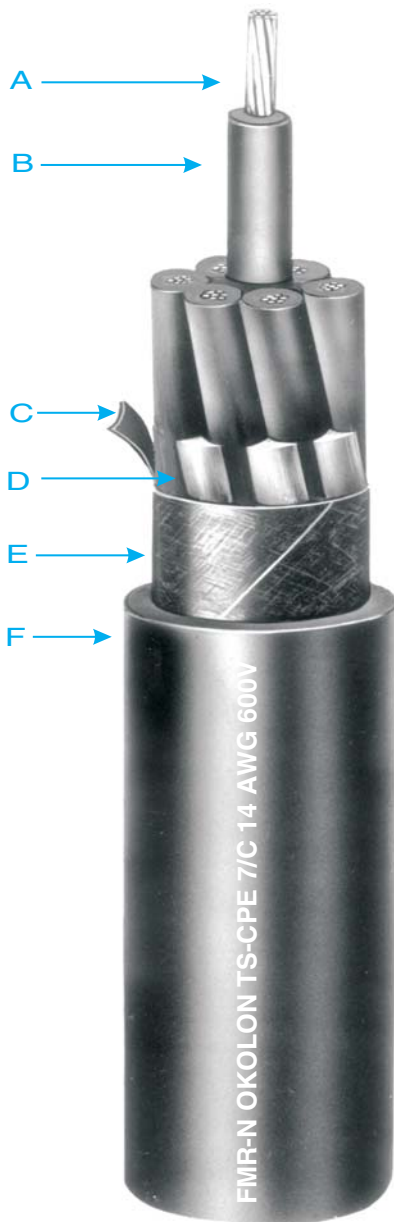




# Okonite® FMR-N® Okolon® TS-CPE

## 600 Volt Power and Control Cable

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



- A Stranded Tin Coated Copper Conductors
- B Okonite FMR-N Insulation
- C Marker Strip
- D Flame and Moisture Resistant Fillers (as needed)
- E Cable Tape
- F Okolon TS-CPE Jacket

### Insulation

Okonite FMR-N is Okonite's trade name for its heat, moisture, flame and chemically resistant, mechanically rugged nuclear plant qualified ethylene-propylene insulation compound. Its physical properties and flame retardancy permit its use without a jacket on the single conductors.

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

Nuclear qualified Okonite FMR-N cables meet IEEE Standard - 383 LOCA and flame test criteria.

### 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-N Power and 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 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:** Tin Coated Copper per ASTM B-33, Class B stranded per ASTM B-8.

**Insulation:** Okonite FMR-N meets or exceeds the electrical and physical requirements of ICEA S-73-532 & S-95-658.

**Color Coding:** Base colors and tracers per ICEA Method 1 Table E-1 color sequence shown on reverse of this sheet. Sizes 8 AWG and larger: surface printing of numbers per ICEA Method 4.

**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 and S-95-658.

### Product Features

- Qualified as Class 1E cable
- Flame retardant - passes the IEEE 383 and 1202 flame test requirements.
- Quality Assurance traceability
- 90°C rated 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 or number coded conductors.
- Resistant to water, oil and most chemicals.
- Thermally stable at elevated temperatures.
- High insulation resistance, even at elevated temperatures.
- Small diameter, lightweight.

# Okonite FMR-N Okolon TS-CPE

## 600 Volt Power and Control Cable

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

**Okonite FMR-N Insulation—600V**

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)		
202-16-2152	14 (7x) 2.08 mm <sup>2</sup>	2	30 0.76 mm	45	1.14	0.39	9.91	102	113	25		
202-16-2153		3		45	1.14	0.41	10.41	124	137	21		
202-16-2154		4		45	1.14	0.45	11.43	141	154	19		
202-16-2155		5		45	1.14	0.49	12.45	170	188	17		
202-16-2157		7		45	1.14	0.53	13.46	211	229	14		
202-16-2159		9		60	1.52	0.65	16.51	310	342	12		
202-16-2162		12		60	1.52	0.73	18.54	391	430	10		
202-16-2169		19		60	1.52	0.85	21.59	536	591	8		
202-16-2187		37		80	2.03	1.17	29.72	1018	1098	6		
202-16-2302		12 (7x) 3.31 mm <sup>2</sup>		2	30 0.76 mm	45	1.14	0.43	10.92	124	137	32
202-16-2303				3		45	1.14	0.45	11.43	156	169	27
202-16-2304				4		45	1.14	0.49	12.45	200	218	24
202-16-2305	5		45	1.14		0.54	13.72	235	253	22		
202-16-2307	7		60	1.52		0.62	15.75	307	331	19		
202-16-2309	9		60	1.52		0.72	18.29	411	450	16		
202-16-2312	12		60	1.52		0.80	20.32	496	535	14		
202-16-2319	19		80	2.03		0.98	24.89	774	838	11		
202-16-2337	37		80	2.03		1.29	32.77	1389	1479	8		
202-16-2452	10 (7x) 5.26 mm <sup>2</sup>		2	30 0.76 mm		45	1.14	0.48	12.19	167	185	42
202-16-2453			3			45	1.14	0.51	12.95	215	233	35
202-16-2454			4			60	1.52	0.59	14.99	289	313	32
202-16-2455		5	60		1.52	0.64	16.26	343	375	28		
202-16-2457		7	60		1.52	0.69	17.53	421	460	23		
202-16-2459		9	60		1.52	0.80	20.32	565	604	20		
202-16-2462		12	80		2.03	0.95	24.13	767	822	17		
202-16-2652		9 (7x) 6.63 mm <sup>2</sup>	2		30 0.76 mm	45	1.14	0.50	12.70	189	207	49
202-16-2653			3			60	1.52	0.57	14.48	264	282	40
202-16-2654			4			60	1.52	0.62	15.75	331	355	36
202-16-2655			5			60	1.52	0.67	17.02	410	442	32
202-16-2657			7			60	1.52	0.73	18.54	493	532	27
202-16-2659	9		80	2.03		0.89	22.61	704	759	23		
202-16-2662	12		80	2.03		1.00	25.40	894	958	20		

Visit Okonite's web site, [www.okonite.com](http://www.okonite.com), for the most up to date dimensions.

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

(1) **Ampacities** are based on one cable in conduit in air, 90°C rated conductor & 40° C ambient.

For cables installed in cable tray, see ANSI/ICEA P54-440 (NEMA WC 51-2003).

COLOR CODE		
No. of Cond.	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

# Product Data

## Section 4: Sheet 20

Catalog Number	Conductor Size AWG/kcmil	Number of Conductors	Insulation Thickness - mils	Grounding Conductor AWG	Jacket Thickness - mils	Jacket Thickness - mils	Approx. O.D. - mm	Approx. O.D. - Inches	Approx. Net Weight lbs./1000'	Approx. Ship Weight lbs./1000'	90°C Wet or Dry (1)
112-16-2842	8(7X)	3	—	60	1.52	0.66	16.8	354	386	52	
112-16-2844		3	10	60	1.52	0.66	16.8	379	411	52	
112-16-2845		4	—	60	1.52	0.73	18.5	436	475	46	
112-16-2847		4	10	60	1.52	0.76	19.3	506	545	46	
112-16-2852	6(7X)	3	—	60	1.52	0.74	18.8	469	508	69	
112-16-2854		3	2x10	60	1.52	0.74	18.8	520	559	69	
112-16-2855		4	—	60	1.52	0.81	20.6	606	645	54	
112-16-2857		4	8	80	2.03	0.90	22.9	742	797	54	
112-16-2862	4(7X)	3	—	60	1.52	0.84	21.3	662	717	91	
112-16-2864		3	3x12	60	1.52	0.84	21.3	709	764	91	
112-16-2865		4	—	80	2.03	0.97	24.6	889	953	81	
112-16-2867		4	8	80	2.03	0.99	25.1	993	1057	81	
112-16-2872	2(7X)	3	—	80	2.03	1.01	25.7	1034	1101	123	
112-16-2874		3	3x10	80	2.03	1.01	25.7	1114	1181	123	
112-16-2875		4	—	80	2.03	1.11	28.2	1276	1356	110	
112-16-2877		4	6	80	2.03	1.15	29.2	1453	1542	110	
112-16-2882	1(19X)	3	—	80	2.03	1.13	28.7	1277	1357	141	
112-16-2884		3	6	80	2.03	1.13	28.7	1341	1421	141	
112-16-2885		4	—	80	2.03	1.25	31.8	1639	1739	126	
112-16-2887		4	6	80	2.03	1.25	31.8	1705	1805	126	
112-16-2892	1/0(19X)	3	—	80	2.03	1.22	31.0	1558	1658	166	
112-16-2894		3	6	80	2.03	1.22	31.0	1621	1721	166	
112-16-2895		4	—	80	2.03	1.34	34.0	1986	2086	149	
112-16-2897		4	6	80	2.03	1.34	34.0	2061	2161	149	
112-16-2902	2/0(19X)	3	—	80	2.03	1.31	33.3	1877	1977	190	
112-16-2904		3	3x10	80	2.03	1.31	33.3	1947	2047	190	
112-16-2905		4	—	80	2.03	1.45	36.8	2434	2577	171	
112-16-2907		4	6	80	2.03	1.45	36.8	2497	2640	171	
112-16-2922	4/0(19X)	3	—	80	2.03	1.54	39.1	2782	2925	255	
112-16-2924		3	3x8	80	2.03	1.54	39.1	2894	3071	255	
112-16-2925		4	—	110	2.79	1.76	44.7	3770	4004	229	
112-16-2927		4	4	110	2.79	1.76	44.7	3870	4104	229	
112-16-2928	250(37X)	3	—	110	2.79	1.76	44.7	3450	3684	282	
112-16-2929		3	4	110	2.79	1.76	44.7	3549	3783	282	
112-16-2930		4	—	110	2.79	1.94	49.3	4417	4683	253	
112-16-2931		4	4	110	2.79	1.94	49.3	4497	4763	253	
112-16-2932	350(37X)	3	—	110	2.79	1.99	50.5	4608	4955	348	
112-16-2933		3	3	110	2.79	1.99	50.5	4740	5087	348	
112-16-2934		4	—	110	2.79	2.20	55.9	5950	6350	313	
112-16-2935		4	3	110	2.79	2.20	55.9	6084	6484	313	
112-16-2936	500(37X)	3	—	110	2.79	2.27	57.7	6423	6982	425	
112-16-2937		3	2	110	2.79	2.27	57.7	6580	7139	425	
112-16-2938		4	—	110	2.79	2.51	63.8	8162	8789	382	
112-16-2939		4	2	110	2.79	2.51	63.8	8317	8829	382	
112-16-2940	750(61X)	3	—	110	2.79	2.72	69.1	9413	10213	524	
112-16-2941		3	1	110	2.79	2.72	69.1	9606	10406	524	
112-16-2942		4	—	140	3.56	3.08	78.2	12276	13076	471	
112-16-2943		4	1	140	3.56	3.08	78.2	12495	13295	471	
112-16-2944	1000(61X)	3	—	140	3.56	3.11	79.0	12312	13112	590	
112-16-2945		3	1/0	140	3.56	3.11	79.0	12578	13373	590	
112-16-2946		4	—	140	3.56	3.44	87.4	15885	17409	530	
112-16-2947		4	1/0	140	3.56	3.44	87.4	16104	17628	530	

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# Okonite FMR-N Okolon TS-CPE

## 600 Volt Power and Control Cable

Multiple Copper Conductors/90°C Rating

for Central Station Applications

**Okonite FMR-N Insulation—600V**

# Product Data

## Section 4: Sheet 20

### Conductor Color Coding Sequence — Sizes 14, 12 & 10 AWG

Conductor Number	Background or Base Color	First Tracer Color	Second 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	—
22	Black	white	Red
23	White	Black	Red
24	Red	Black	White
25	Green	Black	White
26	Orange	Black	White
27	Blue	Black	White
28	Black	Red	Green
29	White	Red	Green
30	Red	Black	Green
31	Green	Black	Orange
32	Orange	Black	Green
33	Blue	White	Orange
34	Black	White	Orange
35	White	Red	Orange
36	Orange	White	Blue
37	White	Red	Blue

Color Coding per ICEA Method 1, E-1  
 Sizes 8 AWG and larger, Surface Printing of Numbers per ICEA Method 4.