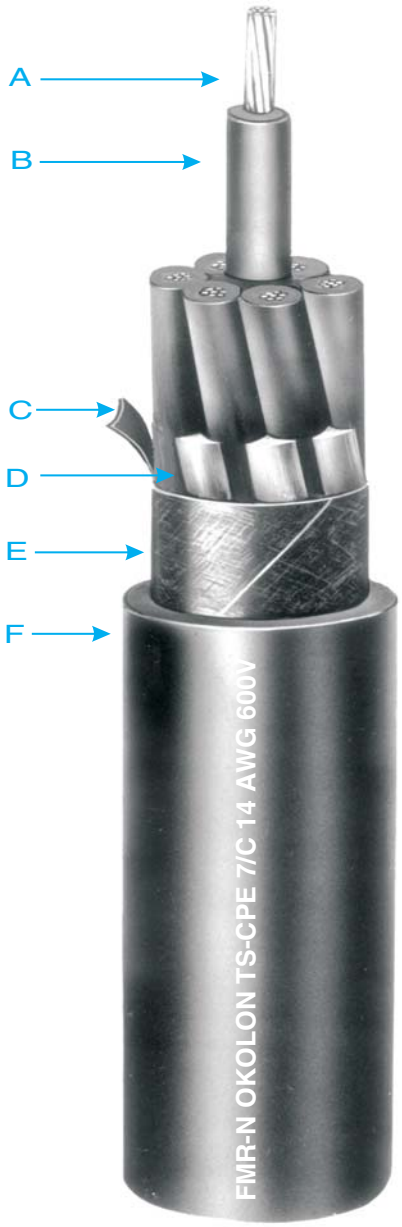
Okonite® FMR-N® Okolon® TS-CPE

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 retardency 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 as shown on reverse of Data 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.

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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 mm²	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 mm²	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 mm²	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 mm²	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

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

▲ **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).

Catalog Number	Conductor Size AWG/kcmil	Number of Conductors	Insulation Thickness - mils	Grounding Conductor AWG	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 (1)
112-16-2842	8(7X)	3	45	—	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	45	—	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	45	—	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	45	—	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	55	—	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	55	—	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	55	—	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	55	—	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	65	—	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	65	—	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	65	—	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	80	—	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	80	—	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 Insulation—600V

Conductor Color Coding Sequence — Sizes 14 - 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

Sizes 8 AWG and larger, Surface Printing of Numbers per ICEA Method 4.

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

THE OKONITE COMPANY
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