



Okoguard® Okoseal® Type MV-105

15kV Okoguard Shielded Self Supporting Aerial Cable

3 Okopact® (Compact Stranded) Copper Conductors/105°C Rating
100% & 133% Insulation Level

Sunlight Resistant with Copperweld Messenger



- A Uncoated Okopact (Compact Stranded) Copper Conductors
- B Okoguard Insulation System - EPR Insulation & Screens
- C Shield - Copper Tape
- D Jacket - Black Okoseal
- E Copperweld Messenger
- F Polyethylene Covered Binder Strap

Insulation

Okoguard® is Okonite's registered trade name for its exclusive ethylene-propylene rubber (EPR) base, thermosetting compound, whose optimum balance of electrical and physical properties is unequalled in other solid dielectrics. Okoguard insulation, with the distinctive red color and a totally integrated EPR system, provides the optimum balance of electrical and physical properties for long, problem free service.

Jacket

The Okoseal® (PVC) jacket supplied with this cable is mechanically rugged and has excellent resistance to flame, oil, acids and most chemicals.

Assembly

Three 1/C Class B stranded copper conductors, triple tandem extruded, semiconducting EPR strand screen - Okoguard EPR insulation - extruded semiconducting EPR insulation screen, shielding tape and an overall jacket. Three single conductors are cabled together and laid parallel to a copper clad steel messenger. The messenger and triplexed assembly are bound together with a PE coated copper or stainless steel strap.

Applications

Okoguard shielded three conductor Okoseal Type MV-105 power cables are recommended for distribution circuits, and for feeders or branch circuits in industrial and utility power distribution systems. Type MV cables may be installed in wet or dry locations, indoors or outdoors (exposed to sunlight), in industrial establishments and electric utilities, residential and commercial applications and others. An excellent alternative where aesthetics and clearances are an issue.

Specifications

Conductors: Uncoated copper compact stranded per ASTM B496.

Strand Screen: Extruded semiconducting EPR strand screen meets or exceeds electrical and physical requirements of ICEA S-93-639/NEMA WC74 and UL 1072, AEIC CS8/ICEA S-97-682.

Insulation: Okoguard meets or exceeds the electrical and physical requirements of ICEA S-93-639/NEMA WC74 and UL 1072. The insulated conductors are tested in accordance with AEIC CS8/ICEA S-97-682.

Insulation Screen: Extruded semiconducting EPR insulation screen per ICEA S-93-639/NEMA WC74, AEIC CS8/ICEA S-97-682 and UL 1072.

Shield: 5 mil uncoated copper tape helically applied with 25% minimum overlap.

Jacket: Meets or exceeds electrical and physical requirements of ICEA S-93-639/NEMA WC74, AEIC CS8/ICEA S-97-682 & UL 1072 for polyvinyl chloride jackets. UL listed as Type MV-105 and sunlight resistant in accordance with UL 1072.

Copperweld Messenger: Copper-clad steel stranded conductor per ASTM B228, and sized in accordance with ICEA P-79-561 for 150 ft. spans.

Assembly: Three single conductors are cabled together and laid parallel to a copper clad steel messenger.

Binder Strap: A sunlight resistant polyethylene (PE) jacketed binder strap with an open lay is wound around the assembly to hold the messenger parallel to the cable axis.

Product Features

- Triple tandem extruded, all EPR system.
- Complete assembled, factory tested wiring system.
- Passes the UL 1072 requirements.
- Excellent corona resistance.
- Screens are clean stripping.
- Exceptional resistance to "treeing".
- Improved temperature rating.
- Minimum installation temperature of -10°C (14°F).
- The standard messenger is copper-clad steel. Also available, upon request, are galvanized steel and stainless steel.
- Additional voltage classes are available.
- Tree trimming requirements reduced.
- Clearance levels reduced due to the use of insulated conductors.
- Eases right-of-way requirements.
- Different size messengers available for different span lengths.
- Singles pass UL and IEEE 383 and 1202 (1/0 AWG and larger). Vertical Tray Flame Test.

Okoguard Okoseal Type MV-105



Product Data Section 2: Sheet 49

15kV Okoguard Shielded Self Supporting Aerial Cable

3 Okopact (Compact Stranded) Copper Conductors/105°C Rating
100% & 133% Insulation Level

Sunlight Resistant with Copperweld Messenger

Catalog Number	Conductor Size AWG/kcmil	Conductor Size - mm ²	Approx. Diameter over Insulation - Inches	Copper Clad Steel Messenger- Inches (stranding) (1)	Diameter - Inches	Approx. 1/C O.D. - Inches	Approx. 1/C O.D. - mm	Jacket Thickness - mils	Jacket Thickness - mm	Approx. O.D. - Inches	Approx. O.D. - mm	Approx. Net Weight lbs./1000'	Approx. Ship Weight lbs./1000'	Ampacities in Air (2)
Okoguard Insulation: 175 mils (4.45mm), 100% Insulation Level														
115-23-9900	2 33.6	0.67	3/8 (7)	0.375	0.88	22.2	60	1.52	2.42	61.5	2121	3011	195	
115-23-9901	1/0 53.5	0.74	3/8 (7)	0.375	0.99	25.1	80	2.03	2.65	67.3	2729	3114	255	
115-23-9902	2/0 67.4	0.78	3/8 (7)	0.375	1.03	26.2	80	2.03	2.74	69.6	3065	3991	295	
115-23-9903	4/0 107.0	0.88	1/2 (7)	0.500	1.12	28.9	80	2.03	3.05	77.5	4169	4640	390	
115-23-9904	250 127.0	0.93	1/2 (7)	0.500	1.18	30.0	80	2.03	3.18	80.8	4660	5790	430	
115-23-9905	350 177.0	1.03	9/16 (7)	0.563	1.26	32.0	80	2.03	3.44	87.4	5934	6867	525	
115-23-9906	500 253.0	1.14	9/16 (19)	0.563	1.38	35.1	80	2.03	3.71	94.2	7583	9133	650	
115-23-9907	750 380.0	1.32	23/32 (19)	0.719	1.55	39.4	80	2.03	4.26	108.2	10775	12584	820	
Okoguard Insulation: 220 mils (5.59mm), 133% Insulation Level														
115-23-9920	2 33.6	0.76	3/8 (7)	0.375	1.00	25.4	80	2.03	2.68	68.1	2466	3392	195	
115-23-9921	1/0 53.5	0.83	3/8 (7)	0.375	1.07	27.2	80	2.03	2.83	71.9	2978	3904	255	
115-23-9922	2/0 67.4	0.87	3/8 (7)	0.375	1.11	28.2	80	2.03	2.92	74.2	3324	4250	295	
115-23-9923	4/0 107.0	0.97	1/2 (7)	0.500	1.21	30.7	80	2.03	3.23	82.0	4463	5593	390	
115-23-9924	250 127.0	1.03	1/2 (7)	0.500	1.26	32.0	80	2.03	3.35	85.1	4942	6072	430	
115-23-9925	350 177.0	1.12	9/16 (7)	0.563	1.35	34.3	80	2.03	3.65	92.7	6326	7876	525	
115-23-9926	500 253.0	1.24	9/16 (19)	0.563	1.47	37.3	80	2.03	3.91	99.3	7969	9516	650	
115-23-9927	750 380.0	1.41	23/32 (19)	0.719	1.65	41.9	80	2.03	4.46	113.3	11211	13121	820	

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

(1) Messenger size based on 150 ft. spans and normal loading in accordance with ICEA P-79-561 "Guide for Selecting Aerial Cable Messengers and Lashing Wires".

(2) Ampacities are in accordance with Table 315.60 (C)(1) of the NEC for insulated Single Copper conductor cables triplexed isolated in air, with a conductor operating temperature of 105°C and an ambient air temperature of 40°C.