



Okoguard[®] URO-J[®]

35kV Underground Primary Distribution Cable-Jacketed OKOLENE[®] Jacket with Red Identification Stripes



Aluminum Filled Strand Conductor/105°C Rating
100% and 133% Insulation Levels



- A Conductor-Stranded Aluminum
- B Strand Screen - Extruded Semiconducting EPR
- C Insulation-Okoguard EPR
- D Insulation Screen - Extruded Semiconducting EPR
- E Concentric Conductor-Bare Copper Wires
- F Encapsulating Jacket-Okolene with three extruded red ID Stripes, and NESC lightning bolt

Insulation

Okoguard is Okonite's registered trade name for its exclusive ethylene-propylene rubber (EPR) based, 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.

Ethylene-propylene rubber screens are extruded over the conductor and the insulation. The triple tandem extrusion of these screens with the insulation provides optimum electrical characteristics.

The bare copper concentric wires are uniformly spaced around the insulation screen. The overall polyethylene jacket provides protection against mechanical damage and corrosion. Product identification is provided through the use of three red stripes placed 120° apart in the black jacket with an NESC lightning bolt.

Applications

Okoguard URO-J cables provide maximum circuit longevity in underground residential distribution systems. They can be buried directly or installed in underground ducts or conduits.

Specifications

Central Conductor: Aluminum per ASTM B-609, Class B stranded per B-231.

Filled Strand: Water swellable agent meets or exceeds ICEA T-31-610 water penetration resistance and ANSI/NEMA Class A connectorability requirements.

Conductor Screen: Extruded semiconducting ethylene-propylene rubber meets or exceeds the requirements of ICEA S-94-649, AEIC CS8, and CSA C68.5.

Insulation: Extruded Okoguard meets or exceeds the requirements of ICEA S-94-649, AEIC CS8, and CSA C68.5.

Insulation Screen: Extruded semiconducting ethylene-propylene rubber meets or exceeds the requirements of ICEA S-94-649, AEIC CS8, and CSA C68.5.

Concentric Conductor: Bare copper concentric wires helically applied.

Jacket: Black Okolene with 3 red extruded stripes meets or exceeds the requirements of ICEA S-94-649, AEIC CS8, and CSA C68.5 for polyethylene jackets.

Product Features

- Triple tandem extruded, all EPR system.
- Okoguard cables meet or exceed ICEA standards.
- Meets RUS 1728.204 for cables with filled strand or solid conductor and 133% insulation level.
- Improved Temperature Rating. Okoguard insulation system has been tested and qualified for operation at 105°C continuous and 140°C emergency operating temperature.
- 250°C short circuit rating.
- Excellent corona resistance.
- Low dielectric constant and power factor.
- Screens are clean stripping.
- Exceptional resistance to "treeing".
- Moisture resistant.
- Excellent resistance to most chemicals.
- Can be listed by UL as Type MV-90 or MV-105 on special orders.
- CSA C68.5 listed, LTGG (-40°C), SR.
- Design Options:
 - Triplexed or Paralleled
 - Cable-in-Conduit
 - Flat Strap Neutral
 - Tinned Wires or Straps
 - Water Blocking Powder or Tape
 - Product identification via colored jackets

Optional Jacket/UL Ratings

- Semi-conducting PE Jacket.
- FR-PVC Jacket (MV-105).
- XLPE Jacket (MV-105).
- Okolene Polyethylene (MV-90).
- Okolene Polypropylene (non-UL).
- OKOLON TP-CPE[®] (MV-105).
- OKOCLEAR TP[®] (TPPO-low smoke zero halogen) MV-105.

Okoguard URO-J

35kV Underground Primary Distribution Cable-Jacketed

Red Identification Stripes

Aluminum Filled Strand Conductor/105°C Rating
100% Insulation Levels

Product Data

Section 2: Sheet 68



Okoguard Insulation: 345 mils 100% Insulation Level

Catalog Number	Conductor size (AWG or Kcmil)	Nominal Dia. over Insulation (in.)	Insulation Screen Thickness (mils)	Nominal Dia. over Insulation Screen (in.)	Copper Neutral No. x AWG (1)	Nominal O.D. (in.)	Approx. Net Weight lbs./1000'	Approx. Ship Weight lbs./1000'	90°C Ampacity Direct Burial (2)	90°C Ampacity Duct (2)	105°C Ampacity Direct Burial (2)	105°C Ampacity Duct (2)
FULL NEUTRAL												
▲ 163-23-6072	1/0(19X)	1.10	40	1.20	16X14	1.45	1060	1212	205	165	225	180
163-23-6074	2/0(19X)	1.15	40	1.25	14X12	1.52	1235	1419	240	190	260	205
163-23-6077	3/0(19X)	1.20	40	1.30	16X12	1.57	1351	1485	270	215	295	230
163-23-6081	4/0(19X)	1.26	40	1.36	14X10	1.74	1663	1867	310	240	335	265
163-23-6083	250(37X)	1.31	40	1.41	16X10	1.79	1815	2043	340	265	370	290
163-23-6085	350(37X)	1.42	40	1.52	18X.1078	1.91	2152	2457	410	320	445	350
1/3 NEUTRAL												
162-23-6072	1/0(19X)	1.10	40	1.20	6X14	1.45	942	1054	195	160	210	175
162-23-6075	2/0(19X)	1.15	40	1.25	7X14	1.49	1028	1140	220	185	240	200
162-23-6078	3/0(19X)	1.20	40	1.30	9X14	1.54	1129	1257	250	210	270	230
162-23-6081	4/0(19X)	1.26	40	1.36	11X14	1.60	1246	1430	285	235	310	260
162-23-6085	250(37X)	1.31	40	1.41	13X14	1.72	1418	1572	305	255	330	280
162-23-6090	350(37X)	1.42	40	1.52	18X14	1.82	1670	1904	375	315	405	345
162-23-6093	500(37X)	1.55	40	1.65	16X12	1.98	2063	2334	450	380	485	415
162-23-6096	750(61X)	1.74	40	1.88	16X.0966	2.24	2733	3106	545	470	595	515
162-23-6099	1000(61X)	1.89	55	2.03	18X.1052	2.41	3295	3678	620	530	675	585

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

(1) Individual wire size and count may vary. The resulting combination meets the 1/3 or full neutral, size requirement.

▲ **Authorized Stock Item** - Available from Customer Service Centers.

Ampacities

(2) Full neutral, single phase ampacities are based on ICEA P-117-734 for 90°C or 105°C conductor temperature, 25°C ambient temperature, 100% load factor, and earth thermal resistivity of RHO 90.

One third neutral ampacities are based on triplexed or triangular configuration for the same conditions stated above.

Okoguard URO-J

35kV Underground Primary Distribution Cable-Jacketed

Red Identification Stripes

Aluminum Filled Strand Conductor/105°C Rating

133% Insulation Levels



Product Data

Section 2: Sheet 68

Okoguard Insulation: 420 mils 133% Insulation Level

Catalog Number	Conductor size (AWG or Kcmil)	Number of Strands	Nominal Dia. over Insulation (in.)	Insulation Screen Thickness (mils)	Nominal Dia. over Insulation Screen (in.)	Copper Neutral No. x AWG (1)	Nominal O.D. (in.)	Approx. Net Weight lbs./1000'	Approx. Ship Weight lbs./1000'	90°C Ampacity Direct Burial (2)	90°C Ampacity Duct (2)	105°C Ampacity Direct Burial (2)	105°C Ampacity Duct (2)
FULL NEUTRAL													
163-23-7072	1/0(19X)	1.26	40	1.36	16X14	1.60	1270	1408	205	165	225	180	
163-23-7074	2/0(19X)	1.31	40	1.41	14X12	1.74	1507	1711	240	190	260	205	
163-23-7076	3/0(19X)	1.35	40	1.45	16X12	1.79	1631	1835	270	215	295	230	
163-23-7078	4/0(19X)	1.41	40	1.51	14X10	1.89	1897	2279	310	240	335	265	
163-23-7080	250(19X)	1.47	40	1.57	16X10	1.95	2057	2362	340	265	370	290	
163-23-7082	350(37X)	1.57	40	1.67	18X.1078	2.06	2421	2789	410	320	445	350	
1/3 NEUTRAL													
162-23-7072	1/0(19X)	1.26	40	1.36	6X14	1.60	1152	1339	195	160	210	175	
162-23-7074	2/0(19X)	1.31	40	1.41	7X14	1.71	1295	1499	220	185	240	200	
162-23-7076	3/0(19X)	1.36	40	1.46	9X14	1.76	1404	1558	250	210	270	230	
162-23-7078	4/0(19X)	1.40	40	1.50	11X14	1.81	1531	1735	285	235	310	260	
162-23-7080	250(37X)	1.47	40	1.57	13X14	1.87	1653	1919	305	255	330	285	
162-23-7082	350(37X)	1.57	40	1.67	18X14	1.97	1924	2229	370	315	405	345	
162-23-7093	500(37X)	1.69	55	1.83	16X12	2.17	2397	2959	450	380	485	415	
162-23-7096	750(61X)	1.90	55	2.03	15X10	2.41	3071	3538	545	470	595	585	
162-23-7098	1000(61X)	2.05	55	2.18	18X.1052	2.57	3623	4103	620	530	675	585	

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(1) Individual wire size and count may vary. The resulting combination meets the 1/3 or full neutral, size requirement.

Ampacities

(2) Full neutral, single phase ampacities are based on ICEA P-117-734 for 90°C or 105°C conductor temperature, 25°C ambient temperature, 100% load factor, and earth thermal resistivity of RHO 90.

One third neutral ampacities are based on triplexed or triangular configuration for the same conditions stated above.