Okoguard® URO-J

15kV Underground Primary Distribution Cable-Jacketed

Red Identification Stripes

Filled Strand Aluminum Conductor/105°C Rating

100% and 133% Insulation Levels

A Conductor - Stranded Aluminum with Filled Strand - Water Swellable Power

B Strand Screen - Extruded Semi-conducting EPR

C Insulation - Okoguard EPR

D Insulation Screen - Extruded Semi-conducting EPR

E Concentric Conductor-Bare Copper Wires

F Encapsulating Jacket-Okolene with Extruded ID Stripes & 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 unequaled 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.

The triple tandem extrusion of the screens with the insulation provides optimum electrical characteristics.

The compressed conductors are filled with water swellable powder. This construction slows the migration of water through the strands in the event of a mechanical dig-in followed by external exposure to water.

An insulation screen of ethylene-propylene rubber is extruded over the insulation. The 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 powder meets or exceeds ICEA T-31-610 water penetration resistance and ANSI/NEMA class A connectorability requirements.

Conductor Screen: Extruded semiconucting ethylene-propylene rubber meets or exceeds the requirements of ICEA S-94-649 and AEIC CS8.

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

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

Concentric Conductor: Bare copper wires.

Jacket: Black Okolene with red extruded stripes meets or exceeds the requirements of ICEA S-94-649 for polyethylene jackets.

Product Features

- Triple tandem extruded, all EPR system.
- Okoguard cables meet or exceed NEMA/ICEA and RUS U-1 standards.
- 105°C continuous operating temperature.
- 140°C emergency rating.
- 250°C short circuit rating.
- Excellent corona resistance.
- Low dielectric constant and power factor.
- Screens are clean stripping.
- Exceptional resistance to “treeing”.
- Filled strand conductor.
- Moisture resistant.
- Overall jacket provides extended life.
- Excellent resistance to most chemicals.
- Can be listed by UL as Type MV-90 on special orders.
- Cable listed by CSA to C68.3 on special orders.
- Design Options:
  - Additional conductor sizes
  - Copper central conductor
  - Copper flat strap concentric neutral
  - Product identification via colored jackets.
  - Semiconducting jackets.
- Improved Temperature Rating.

Okoguard insulation system has been tested and qualified for operation at 105°C continuous and 140°C emergency operating temperature.

- Minimum installation temperature of -40°C.

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133% Insulation Level

Okoguard Insulation: 220 mils 133% Insulation Level

Catalog Number	Conductor Size AWG|kcmil	Nominal Dia. over Insulation (in.)	Nominal Dia. over Insulation Screen (in.)	Copper Neutral, No. x AWG (1)	Nominal O.D. (in.)	Aprox. Net Weight lbs./1000'	Aprox. Ship Weight lbs./1000'	90° Ampacity Direct Burial (2)	90° Ampacity Duct (2)	105° Ampacity Direct Burial (2)	105° Ampacity Duct (2)
FULL NEUTRAL											
▲ 163-23-3060	2(7x)	0.77	0.85	10 x 14	1.08	602	669	165	120	180	130
163-23-3066	1(19x)	0.82	0.90	13 x 14	1.14	694	766	185	135	205	150
▲ 163-23-3072	1/0(19x)	0.84	0.92	16 x 14	1.15	753	820	210	155	235	170
163-23-3075	2/0(19x)	0.91	0.98	13 x 12	1.25	916	996	240	175	270	200
163-23-3078	3/0(19x)	0.96	1.04	16 x 12	1.31	1045	1125	270	200	305	225
163-23-3081	4/0(19x)	1.02	1.09	13 x 10	1.41	1252	1347	310	230	350	260
163-23-3084	250(37x)	1.07	1.17	16 x 10	1.48	1456	1606	340	255	385	285
163-23-3090	350(37x)	1.18	1.28	20 x 10	1.59	1762	1912	405	300	455	340
1/3 NEUTRAL											
162-23-3060	2(7x)	0.78	0.85	6 x 14	1.09	562	627	155	135	165	130
162-23-3066	1(19x)	0.82	0.90	6 x 14	1.14	612	684	175	155	190	150
162-23-3072	1/0(19x)	0.86	0.94	6 x 14	1.18	661	733	200	175	215	175
162-23-3075	2/0(19x)	0.91	0.98	7 x 14	1.22	730	810	230	200	245	195
162-23-3078	3/0(19x)	0.96	1.04	9 x 14	1.27	825	905	260	230	280	225
▲ 162-23-3081	4/0(19x)	0.99	1.06	11 x 14	1.30	891	1005	290	240	315	255
162-23-3084	250(37x)	1.07	1.17	13 x 14	1.41	1069	1164	320	260	345	280
▲ 162-23-3090	350(37x)	1.16	1.26	18 x 14	1.50	1254	1425	380	320	415	345
▲ 162-23-3093	500(37x)	1.29	1.39	16 x 12	1.72	1666	1853	455	385	495	415
▲ 162-23-3096	750(61x)	1.48	1.58	15 x 10	1.95	2244	2468	555	470	600	510
▲ 162-23-3099	1000(61x)	1.63	1.77	18 x *(A)	2.15	2808	3093	645	550	685	585

* - Special Conductor Size (A) Wire O.D. =0.1066"
(1) Individual wire size and count may vary. The resulting combination meets the 1/3 or full neutral, size requirement.
Visit Okonite's web site www.okonite.com for the most up to date dimensions.

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

Ampacities

(2) Full neutral, single phase ampacities are based on ICEA's S-94-649, Appendix F for 90°C conductor temperature, 20°C ambient temperature, 100% load factor, and earth thermal resistivity of RHO 90 and modified for jacketed cable.
One third neutral ampacities are based on ICEA P-53-426 triplexed or triangular configuration for the same conditions stated above.