



Okoguard®-Okoseal®

69kV Shielded Power Cable

Conductor/105°C Rating — 100% Insulation Level



- A Uncoated, Okopact (Compact) or Compress Stranded Copper or Aluminum Conductor
- B Strand Screen-Extruded Semiconducting EPR
- C Insulation-Okoguard EPR
- D Insulation Screen-Extruded Semiconducting EPR
- E Shield- 5 Mil Uncoated Copper Tape
- F Jacket-Okoseal

Insulation

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

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

Jacket

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

Applications

Okoguard-Shielded-Okoseal 69kV Cables are designed for use as primary circuits in electrical utility and industry applications where they provide maximum circuit security and economical installation. Rated 105°C for continuous operating temperature, Okoguard 69kV cables may be installed in wet or dry locations indoors or outdoors (exposed to sunlight) in underground ducts, conduits or direct burial.

Specifications

Conductors: Uncoated copper sizes 250 through 1000 kcmil compact round stranding per ASTM B-496. Uncoated copper sizes larger than 1000 kcmil compress round stranding per ASTM B-8. EC Aluminum per ASTM B609, Class B stranded per B-231.

Strand Screen: Extruded semiconducting EPR strand screen. Meets or exceeds electrical and physical requirements of ICEA S-108-720, AEIC CS9.

Insulation: Meets or exceeds electrical and physical requirements of ICEA S-108-720 and AEIC CS9.

Insulation Screen: Extruded semiconducting EPR insulation screen. Meets or exceeds electrical and physical requirements of ICEA S-108-720 and AEIC CS9.

Shield: 5 mil bare copper tape helically applied with 25% nominal overlap.

Jacket: Meets or exceeds electrical and physical requirements of ICEA S-108-720 for polyvinyl chloride jackets.

Optional jackets include Okolene, Okolon TS-CPE, Okoclear and, when specified, a semi-conducting outer layer.

Optional shields include neutral wires, LCS and a combination of copper tape and wires. A CLX armor covering is also available.

Product Features

- Triple tandem extruded, all EPR system.
- Okoguard cables meet or exceed recognized industry standards (AEIC, NEMA/ ICEA).
- 105°C continuous operating temperature.
- 140°C emergency rating.
- 250°C short circuit rating.
- Excellent corona resistance.
- Exceptional resistance to "treeing."
- Low shield resistance.
- Moisture resistant.
- Resistant to most oils, acids, and alkalis.
- Sunlight resistant.
- Improved Temperature Rating.
- Screens are clean stripping.

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Product Data

Section 2: Sheet 18

Okoguard Insulation: 650 mils (16.5mm)

Catalog Number	Conductor Size AWG or kcmil		Conductor Size -mm ²		Approx. Dia. over Insulation (in.)		Approx. Dia. over Screen (in.)		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 (1) Direct Burial		Ampacities (1) Underground Duct		Conduit Size Inches (2)*			
Copper Conductor - Compact Round																												
115-22-3765	250	127	1.91	2.01	110	2.79	2.26	57.4	3086	3459	444	398	3 ½															
115-22-3767	350	177	2.01	2.11	110	2.79	2.36	59.9	3538	3873	550	495	3 ½															
▲ 115-22-3771	500	253	2.12	2.22	110	2.79	2.47	62.7	4179	4514	667	599	3 ½															
115-22-3775	750	380	2.30	2.40	110	2.79	2.64	67.1	5213	5805	825	742	4															
▲ 115-22-3777	1000	507	2.44	2.54	140	3.56	2.85	72.4	6389	7151	957	861	4															
Copper Conductor - Compress Round																												
115-22-3778	1250	633	2.68	2.78	140	3.56	3.09	78.5	7582	8344	1066	959	5															
115-22-3779	1500	761	2.78	2.88	140	3.56	3.19	81.0	8527	9447	1157	1042	5															
Aluminum Conductor - Compress Round																												
135-22-3765	250	127	1.94	2.04	110	2.79	2.29	58.2	2614	3200	348	312	3 ½															
135-22-3767	350	177	2.06	2.16	110	2.79	2.41	61.2	2888	3223	429	386	3 ½															
135-22-3771	500	253	2.19	2.29	110	2.79	2.54	64.5	3244	3579	523	469	3 ½															
135-22-3775	750	380	2.37	2.47	110	2.79	2.72	69.1	3778	4175	650	584	4															
135-22-3777	1000	507	2.52	2.62	140	3.56	2.93	74.4	4433	4904	759	683	4															
135-22-3778	1250	633	2.68	2.78	140	3.56	3.09	78.5	4954	5716	853	768	5															
135-22-3779	1500	761	2.80	2.90	140	3.56	3.21	81.5	5381	6034	936	842	5															

Visit Okonite's web site, www.okonite.com for the most up to date dimensions.

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

Additional conductor sizes are available.

Ampacities

(1) Ampacities are in accordance with ICEA P-53-426 for three single 69kV conductors directly buried or in individual ducts underground, 36" deep with 7 1/2" spacing between conductors, at 105°C maximum conductor temperature, 25°C earth temperature, soil resistivity of 90 Rho, 100% load factor, and open circuit shields.

(2) Recommended size of rigid nonmagnetic or nonmetallic conduit for a single conductor based on 53% maximum fill