



# GLOSSARY

### INDUSTRY ASSOCIATIONS

**ABS** American Bureau of Shipping.

**AEIC** Association of Edison Illuminating Companies.

**ANSI** American National Standards Institute.

**AREMA** American Railway Engineering and Maintenance of Way Association

**ASTM** American Society for Testing and Materials.

**ICEA** Insulated Cable Engineers Association (formerly IPCEA).

**IEC** International Electrotechnical Commission

**IEEE** Institute of Electrical and Electronics Engineers.

**NEC** National Electrical Code.

**NEMA** National Electrical Manufacturers Association.

**NFPA** National Fire Protection Association.

### GOVERNMENT AGENCIES

**OSHA** Occupational Safety and Health Act administered by U.S. Dept. of Labor which establishes employee safety standards in all industrial and commercial establishments.

**RUS** Rural Utility Systems of the U.S. Department of Agriculture, formerly REA.

**FAA** Federal Aviation Administration

**EPA** Environmental Protection Agency

**DOE** Department of Energy

**FERC** Federal Energy Regulatory Commission

### OKONITE REGISTERED TRADE NAMES

**C-L-X®** Continuous-Lightweight-Exterior. Welded and corrugated, impervious metallic sheathed cables.

**LOXARMOR®** An interlocked "S" shaped armor cable covering, normally galvanized steel or aluminum.

**OKOBON®** A moisture resistant cable finish consisting of an aluminum/copolymer tape fused to itself and to an overall jacket.

**OKOBUS®** Fieldbus instrumentation cable.

**OKOCLEAR TP® (TPPO)** Thermoplastic Polyolefin low smoke/zero halogen jacket compound.

**OKOCLEAR TS®** Thermosetting Polyolefin low smoke/zero halogen jacket compound.

**OKOGUARD®** Okonite's exclusive ethylene-propylene rubber (EPR) based, thermosetting insulation, with an optimum balance of electrical and physical properties unequalled in other solid dielectrics, used on power cables rated 600 V and above. (50th Anniversary - 2017)

**OKOLENE®** Thermoplastic polyethylene or polypropylene based insulation or jacket compound.

**OKONITE®** Okonite's exclusive ethylene propylene rubber (EPR) based, thermosetting insulation used up to 2000V.

**OKONITE-FMR®** Okonite's exclusive flame and moisture resistant ethylene propylene rubber (EPR) insulation used up to 2000V.

**OKOGUARD-OKOLON®** Composite insulation system consisting of a layer of EPR and covered with a chlorinated thermoset compound.

**OKO-PACT®** Okonite's unique compact round conductor shape and design.

**OKOSEAL®** A PVC insulation or jacketing compound with excellent resistance to flame and most chemicals.

**OKOSEAL-N®** PVC insulated and nylon jacketed low voltage conductors, Type THHN, THWN-2 and TFN.

**OKOLON TP-CPE®** Thermoplastic moisture resistant CPE compound serving as an outer jacket.

**OKOLON TS-CPE®** Thermoset moisture resistant flame retardant CPE outer jacket.

**OKOTEMP®** - Thermoplastic rubber jacketing compound with excellent abrasion resistance combined with flexibility.

**OKOTHERM®** Heat resistant silicone rubber based insulation for use in high temperature locations.

**OKOZEL®** Okonite's name for its ETFE based flame and radiation resistant insulating and jacketing compound.

**P-30®** Okolene-Okoseal insulated 600V multiple and single conductor control cable.

**P-45®** Okolene-Okoseal Insulated 1000V Multiple Conductor Control Cable.

**URO-J** Underground Residential distribution-Okoguard (EPR) insulation-Okolene Jacket employing a concentric neutral.

**USE** Underground Service Entrance cable. (NEC Article 338)

**X-OLENE®** Okonite's name for its XLPE insulation and jacket.

### STANDARD TERMS

**AWG** American Wire Gauge, based on the circular mil system where 1 mil equals 0.001 inch.

**CIC** Cable in Conduit for buried distribution systems.

**CIC** Circuit Integrity flame retardant cables

**C-L-X-M** C-L-X Marine Shipboard Cable

**CPE** Chlorinated Polyethylene jacketing material.

**CSA** Canadian Standards Association. An independent organization which implements and monitors the commercial and consumer electrical product standards. The CSA assures compliance to the various Canadian Electrical Code requirements.

**CT** Designation given to cables meeting UL requirements for cable tray use.

**CTC** Designation for Centralized Traffic Control Code Line cable.

**CWCMC** UL's designation for 600 volt C-L-X marine shipboard cable - "continuously welded corrugated MC" cable.

**DEL** Diesel Electric Locomotive and car wiring with Okonite insulation and Okolon jacket.

**EPR** Ethylene Propylene Rubber insulating compound ingredient.

**ER** Exposed Run, UL term designating cables approved for open wire applications.

**ETFE** Modified Ethylene Tetrafluoroethylene compound (Okozel) used for insulation and jackets.

**FIELDBUS CABLE** - High Speed digital signal transmission instrumentation cable having specific electrical characteristics.

**FPL** Power limited Fire Protective Signal Cable (NEC Art. 760). 300V rated

**FMR** Flame and Moisture Retardant.

**HL** Designation given to MC and ITC cables meeting NEC and UL requirements for use in Division 1 hazardous locations.

**INSULATION LEVEL-100%** Cable for use on grounded systems or where the system is provided with relay protection such that grounds faults will be cleared as rapidly as possible but in any case within one minute.

**INSULATION LEVEL-133%** Cable for use on ungrounded or grounded systems or

# GLOSSARY (continued)

where the faulted section will be de-energized in a time not exceeding one hour.

**ITC** Instrumentation Tray Cable for instrumentation & control circuits operating  $\leq 150V$  and  $\leq 5$  amps., per NEC Article 727.

**kcmil** A unit of conductor area in thousands of circular mils. (Formerly MCM).

**LOCA** Loss of Coolant Accident, IEEE 383 defines test requirements.

**LCS** Longitudinal Corrugated Shield.

**MC** Metal-Clad cable. NEC type designation for power and control cables enclosed in a welded and corrugated metallic sheath (C-L-X), or an interlocking tape armor (Loxarmor). (Article 330)

**MC-HL** Metal-Clad cable listed for hazardous locations

**mil** 0.001 inch.

**MV** Medium Voltage cable. NEC designation for single & multiple conductor insulated cable rated 2001 to 35,000 volts. (NEC Article 328)

**NPLF** Non-Power Limited Fire Protective Signal Cable (NEC Art. 760). 600V rated

**OKO-MARINE** UL designation for non-armored Marine Shipboard Cable.

**PLTC** Type designation for Power-Limited Tray Cable for use in Class 2 or 3 power-limited circuits; instrumentation, supervisory control, and thermocouple extension.

**P-NS** Single pair or triad, Non Shielded, instrumentation or thermocouple extension cable.

**P-OS** Single or multi Pairs or Triads with Overall Shield, instrumentation or thermocouple extension cable.

**POWER-LIMITED CIRCUIT** Circuit either inherently limited requiring no overcurrent protection or limited by a combination of a power source and overcurrent protection.

**PVC** Polyvinyl Chloride insulating and jacketing material which is usually flame retardant and resistant to many chemicals.

**P-104** Okonite's identification number issued by the Pennsylvania Department of Environmental Resources.

**RHH** NEC conductor type designation for conductors with Heat resistant rubber or XLPE insulation, for use in dry locations.

**RHW-2** NEC conductor type designation for conductors with Heat and Moisture

resistant rubber or XLPE insulation, for use in 90°C wet or dry locations.

**RTA** Thermoplastic insulated, aluminum shielded, polyethylene jacketed communication cable.

**SCREEN** A semiconducting nonmetallic layer used under and over the insulation of power cables rated over 2KV to reduce electrical stresses and corona

**SEMICONDUCTING** An extruded layer or tape of such resistance that when applied between two elements of a cable the adjacent surfaces of the two elements will maintain substantially the same potential.

**SHIELD** A nonmagnetic, metallic material applied over an insulated conductor(s) to confine the electric field to the insulation.

**SP-OS** Multiple Shielded Pairs or Triads with Overall Shield, instrumentation or thermocouple extension cable.

**SR** Sunlight Resistant

**TC** NEC type designation for power and control tray cable. (Article 336)

**TFN** NEC conductor type designation for PVC insulated nylon jacketed conductors in sizes #18 and 16 AWG for use in dry locations.

**THERMOCOUPLE CABLE** - A cable consisting of two dissimilar metals or alloys that, when electrically joined at one end can be used to measure temperature. These cables have no voltage rating.

**THHN** NEC conductor type designation for PVC insulated nylon jacketed conductors for use in dry locations.

**THWN-2** NEC conductor type designation for PVC insulated nylon jacketed conductors for use in 90°C wet or dry locations.

**TPPO** Thermoplastic Polyolefin, a thermoplastic jacket material with low smoke characteristics and is free of halogens.

**UL** Underwriters Laboratories. An independent organization which examines, tests, lists and periodically inspects equipment to appropriate standards.

**URD** Underground Residential Distribution Cables.

### VERTICAL TRAY FLAME TEST

Conducted per UL, IEEE or ICEA procedures to demonstrate that a single conductor (1/0 AWG and larger) or multi-conductor cable will not propagate a fire in the defined test.

### VOLTAGE LEVELS

Power-Limited - 0-300 Volts

Low Voltage - 600-2000 Volts

Medium Voltage - 2400-46000 Volts

High Voltage - >46 to 345kV

**VOLTAGE RATING** V or kV, industry convention to identify voltage levels, phase to phase voltage.

**VW-1** Basic flammability test for single conductors; employs a tirrill burner applied intermittently to a Vertical Wire.

**XHHW-2** NEC conductor type designation for conductors with Heat and Moisture resistant thermoset insulation for use in 90°C wet or dry locations.

**XLPE** Cross-Linked Polyethylene insulating compound.

**XLPO** Cross Linked Polyolefin, a thermoset jacket material with low smoke characteristics and is free of halogens.

**Z** NEC conductor type designation for conductors with ETFE insulation for use in dry locations.

**ZW** NEC conductor type designation for conductors with ETFE insulation for use in wet or dry locations.

### CONDUCTOR IDENTIFICATION INFORMATION

**E-1** Color sequences for utility conductor identification, see Appendix E, Table E-1, ICEA Standard S-73-532, includes green and white.

**E-2** Color sequence for industrial conductor identification, see Appendix E, Table E-2, ICEA Standard S-73-532, excludes green and white.

**METHOD-1** Conductor identification, colored compounds with tracers in accordance with the ICEA standard.

**METHOD-2** Conductor identification, neutral compounds with tracers in accordance with the ICEA Standard.

**METHOD-3** Conductor identification, neutral or single colored compounds with surface printing of numbers and color designations in accordance with the ICEA Standard.

**METHOD-4** Conductor identification, neutral or single colored compounds with surface printing of numbers in accordance with the ICEA Standard.

**METHOD-5** Conductor identification, individual color coding with braids in accordance with the ICEA Standard.