## Okonite Cables

### Facilities Overview

# **District Offices, Manufacturing Plants & Service Centers**







Richmond, KY - Manufacturing Plant Santa Maria, CA - Manufacturing Plant







Baton Rouge District Office FAX: (504) 467-1926 E-Mail: batonrouge@okonite.com Birmingham District Office

(770) 928-9778

FAX: (770) 928-0913

E-Mail: atlanta@okonite.com

FAX: (205) 655-0393 E-Mail: birmingham@okonite.com Boston District Office (603) 625-1900 (781) 749-3374

FAX: (603) 624-2252 F-Mail: boston@okonite.com Charlotte District Office (704) 542-1572 FAX: (704) 541-6183 E-Mail: charlotte@okonite.com

Chicago District Office FAX: (630) 961-3273 E-Mail: chicago@okonite.com **Cleveland District Office** 

(330) 926-9181 FAX: (330) 926-9183 E-Mail: cleveland@okonite.com **Dallas District Office** (940) 383-1967 FAX: (940) 383-8447 E-Mail: dallas@okonite.com

**Denver District Office** (303) 772-3517 FAX: (303) 772-3513 E-Mail: denver@okonite.com

& Service Center (281) 821-5500 FAX: (281) 821-7855 & Service Center

Minneapolis District Office (763) 432-3818 FAX: (763) 432-3811

New Orleans District Office

& Service Center FAX: (504) 467-1926 E-Mail: neworleans@okonite.com New York District Office NJ (973) 742-8040

Philadelphia District Office

Phoenix District Office

FAX: (480) 897-8924 E-Mail: phoenix@okonite.com Pittsburgh Service Center

FAX: (724) 899-4320

Kansas City District Office

E-Mail: kansascitv@okonite.com

E-Mail: losangeles@okonite.com

(504) 467-1920

NY (212) 239-0660 FAX: (973) 742-2156

(724) 899-4300

E-Mail: pittsburgh@okonite.com Portland District Office

& Service Center

Salt Lake District Office

FAX: (801) 262-3167 E-Mail: saltlake@okonite.com San Francisco District Office

E-Mail: houston@okonite.com

(913) 422-6958 FAX: (913) 422-1647

Los Angeles District Office (562) 590-3070 Fax: (562) 590-3139

E-Mail: newyork@okonite.com

(856) 931-0595 (215) 604-1565 FAX: (215) 604-1564 E-Mail: philadelphia@okonite.com

(480) 838-8596

(503) 598-0598 FAX: (503) 620-7447 E-Mail: portland@okonite.com

(801) 262-1993

(925) 830-0801 FAX: (925) 830-0954

E-Mail: sanfrancisco@okonite.com St Louis District Office (314) 770-9070 FAX: (314) 770-9140

E-Mail: stlouis@okonite.com Tampa District Office FAX: (813) 246-4705

> FAX: (201) 825-9026 E-Mail: ramsev@okonite.com

E-Mail: tampa@okonite.com Washington District Office (703) 904-9494

FAX: (703) 904-1610 E-Mail: washington@okonite.com International Sales (201) 825-0300



Kansas City, KS























### **AIRPORT LIGHTING CABLE**

Throughout Okonite's vast history, reliability has been the primary goal for product design, application and field service. Okonite responds to unique requirements through analysis by our Applications Engineering Team coupled with our high quality in-house compounding of rubber insulation and jackets.

Single conductor airport lighting cable is a power cable that draws from Okonite's extensive design expertise and manufacturing capabilities.

It is generally recognized that a cable surface characteristic known as track resistance is a key fundamental design objective for airport lighting cable. In addition, the cable's insulation/jacket system must be chemically compatible with the application environment which in this case is the deicing chemicals used at many airports.

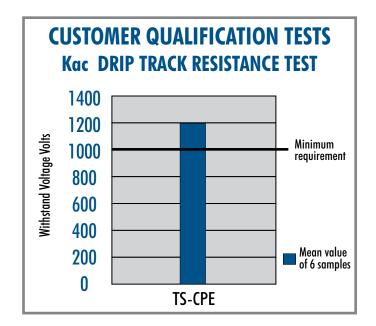
Recognizing these mechanisms, Okonite established a test protocol to verify and confirm the excellence of track resistance of its Okoguard (EPR)/Okolon (TS-CPE) 5kV non-shielded cables. The cured and bonded EPR/TS-CPE insulation system is the optimum design criteria for this wet location service environment.

Demanding electrical tests were conducted to examine the cable's surface conductivity, aged dielectric testing and tracking resistence when exposed to chemical wetting agents.

The results of this "application specific" test protocol confirmed that the Okoguard (EPR)/Okolon (TS-CPE) 5kV insulation/jacket system exhibits superior performance in electrical surface discharge testing.

# CUSTOMER QUALIFICATION TESTS DRIP TRACK RESISTANCE TEST

- Test conducted on slabs of materials
- Slabs immersed in KAc 50/50 deicing solution
- Wetting rate: 0.2 cm /minute
- Applied voltage: 100 volts/30 minutes & increased in 100 volt steps
- Requirement: >1000 volts (Minimum Value)



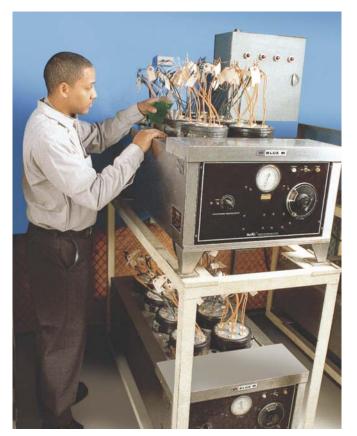
## dc SSR KAc/WATER @30C

|      | TS-CPE    |  |
|------|-----------|--|
| Days | Megohms   |  |
| 0    | 5,000,000 |  |
| 1    | 780,000   |  |
| 7    | 830,000   |  |
| 14   | 320,000   |  |
| 21   | 990,000   |  |
| 28   | 950,000   |  |

### dc SSR TAP WATER

Customer Requirement: > 200,000 megohms

|                                     |      | TS-CPE    |  |
|-------------------------------------|------|-----------|--|
|                                     | Days | Megohms   |  |
|                                     | 0    | 3,300,000 |  |
|                                     | 1    | 1,600,000 |  |
|                                     | 7    | 1,700,000 |  |
|                                     | 14   | 2,300,000 |  |
|                                     | 21   | 2,600,000 |  |
|                                     | 28   | 2,200,000 |  |
| ICEA Requirement: > 200,000 megohms |      |           |  |



Wet Electrical Aging Test Apparatus

Operating conditions generating an electrical surface discharge can erode cable materials and lead to failure. The EPR/TS-CPE system withstands the following listed tests:

#### SURFACE CHARACTERISTICS

Specific Surface Resistivity

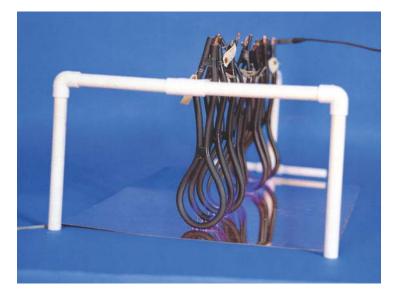
#### DRY SURFACE

U-Bend Discharge Needle Surface Tracking Test

Okonite is a FAA certified supplier for L-824 underground electrical cable for airport lighting circuits as certified by the FAA's approved third party certification test lab, Electrical Testing Laboratory/Intertek Testing Services.

Quality products and service for specific customer needs and system reliability are Okonite's commitment to the industry.

If you have any questions, please contact your local Okonite Sale Representative. Also, visit our website at www.okonite.com.



# U BEND PLATE DISCHARGE ANSI/ICEA S-96-659

| 6 & 8 AWG        | DRY                   | WET                         |
|------------------|-----------------------|-----------------------------|
| Pre-conditioning | None                  | (1) none<br>(2) 14 days@75C |
| U bend diamters  | 6 X OD                |                             |
| TEST VOLTAGE     | 14 kV                 | (1) 20kV<br>(2) 15kV        |
| Time, hours      | 6                     | 100                         |
| Requirements     | No cracks or failures |                             |

### **SSR TEST**



Room Temperature Water 2 Day Immersion

DC Surface Resistance Measurement Between Electrodes

# OKOGUARD®-OKOLON® 5kV LIGHTING CABLE FAA-L-824 TYPE B

One Okopact (Compact Stranded) Copper Conductor/90° Rating Wet or Dry



#### **INSULATION:**

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

JACKET: The Okolon TS-CPE jacket on this cable is a thermoset chlorinated polyethylene

based compound which is mechanically rugged, flame, and oil resistant.

APPLICATION: Okoguard-Okolon 5kV cables are heavy duty nonshielded cables designed for

use at up to 5kV in wet or dry locations.

Okoguard-Okolon 5kV nonshielded airport lighting cables are recommended for use in series lighting circuits for runways and control systems. Cables can be installed in metallic or non-metallic conduit, directly buried or aerial applications.

**SPECIFICATION:** Meets or exceeds the requirements of FAA Advisory Circular AC 150/5345-7F.

**CONDUCTOR:** Uncoated copper compact stranded per ASTM B-496.

**INSULATION:** Meets or exceeds electrical and physical requirements of ICEA S-96-659/NEMA WC71.

Insulation thickness per table 4-3 for wet or dry applications. Combine with insulation

section above.

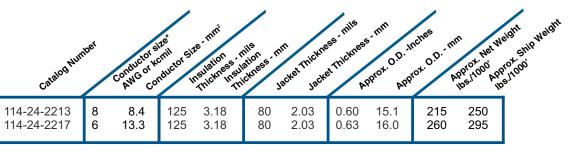
JACKET: Meets or exceeds electrical and physical requirements of ICEA S-96-659/NEMA WC71

for thermoset chlorinated polyethylene jackets. Combine with jacket section above.

#### **PRODUCT FEATURES**

- Resistant to runway and wing de-icers.
- 90°C continuous operating temperature.
- 250°C short circuit rating.
- Exceptional resistance to surface tracking.
- Superior flexibility.

- Constructed for "wet" location applications.
- 130°C emergency rating.
- Excellent corona resistance.
- Stress cones not required.
- Resistant to most oils, acids, and alkalies.



<sup>\*</sup> Class C stranding conductors are available. Both items available from our Customer Service Centers.