THE OKONITE COMPANY

CABLE JACKETS
We've Got You Covered
From the very first cables we manufactured in 1878 until today, Okonite has been on the forefront of cable jacketing innovation. Cable jackets are critical components in the proper operation and service longevity of power, control and instrumentation cables.

Okonite offers many jacket materials to suit any application. Okolon TS and Okoclear-TS Thermoset compounds are designed and manufactured at our Orangeburg, SC jacketing facility to ensure quality conformance. Testing at our Materials Research Lab in Paterson, NJ as well as our Flame Test Center in Orangeburg, SC assure the finished cable meets or exceeds all applicable industry and customer specifications.

This brochure is intended to give an overview of the various materials we offer and the associated characteristics of each. In a snapshot, here are the jacket compounds we can provide:

**THERMOPLASTIC**
- **OKOLON**®-TP-Thermoplastic Chlorinated Polyethylene
- **OKOCLEAR**®-TP Thermoplastic Polyolefin, low smoke zero halogen
- **OKOLENE**®-PP Thermoplastic Polypropylene
- **OKOLENE**®-LLPDE Thermoplastic Linear Low Density Polyethylene
- **OKOSEAL**® Thermoplastic PVC (Polyvinyl Chloride)
- **OKOSEAL**®-FR Thermoplastic PVC (Polyvinyl Chloride) with enhanced flame resistance.
- **OKOSEAL**®-LT Thermoplastic PVC (Polyvinyl Chloride) with enhanced low temperature performance.

**THERMOSET**
- **X-Olene**® Thermoset Cross-Linked Polyethylene
- **X-Olene**®-FMR Thermoset Cross-Linked Polyethylene with enhanced flame and moisture resistance
- **OKOLON**®-TS-Thermoset Chlorinated Polyethylene
- **OKOCLEAR**®-TS Thermoset Polyolefin, low smoke zero halogen

Today, and for the last several decades, polymeric materials have been the predominant choice for cable jacket use. These can be divided into two general classes: Thermoset and Thermoplastic. In general, Thermoplastic jackets loose their physical strength as temperatures increase. Thermoset jackets maintain good physical strength at elevated temperatures.
Okonite's staff of Chemists and Research Engineers use the latest in advanced technology to develop the best jacketing compounds available for any applications. This group of industry experts, along with our staff of Application Engineers provide our customers with the best-in-class cable jacketing solutions no matter what the environment.
CABLE JACKETS

Acid Gas testing

Raw material storage racks
THE PROPERTIES THAT MUST BE CONSIDERED WHEN DESIGNING A JACKET COMPOUND ARE AS FOLLOWS:

PHYSICAL AND AGING
- Tensile Strength
- Elongation
- Modulus
- Tear Strength
- Hardness
- Low and High Temperature Properties
- Coefficient of Friction

ENVIRONMENTAL CONCERNS
- Thermal Oxidative Aging Resistance
- Oil & Other Fluid Resistance
- Weathering and Sunlight Resistance
- Ozone Resistance
- Environmental Stress Crack Resistance
- Ionizing Radiation Resistance
- Moisture Absorption
- Corrosion Protection

COMBUSTION PROPERTIES
- Flame Resistance
- Smoke Generation
- Acid Gas Generation

OTHER
- Compatibility with Insulations
- Adhesion to Insulations and Other Cable Components
- Electrical Characteristics

Stress/Strain Testing

Xenon Arc "Weather-Ometer"

Digital Microscopy
To ensure our designs meet or exceed industry standards and customers specifications, Okonite constructed a state-of-the-art Flame Test Center at its Orangeburg, SC campus. This gives us the total control over the finished product: design, production and QA/QC. All done 100% in-house.

**PARTIAL LIST OF EQUIPMENT AND FACILITIES**

**PHYSICAL AND AGING**
- Tensile Testing Equipment
- Aging Ovens
- Flex Testing Equipment

**ENVIRONMENTAL CONCERNS**
- Fluid Resistance Ovens
- Weatherometer
- Temperature Controlled Environmental Chamber
- Ozone Test Chamber
- Autoclave Determination of High Pressure Steam Resistance

**COMBUSTION ANALYSIS**
- Flame Test Center
- Smoke Measurement Chamber
- Toxicity Chamber
- Oxygen Index Equipment

**OTHER**
- Mills, Presses & Mixing Equipment (Banbury)
- Laboratory Extrusion Lines (both thermoset and thermoplastic materials)
- Analytical Laboratory including Thermal Analysis and Infrared Equipment
- Fully Equipped Low and High Voltage Electrical Laboratories
- Chemical Laboratory
- Laboratory for Determination of Rheological properties

*Vertical Flame Testing*

*Testing in our Orangeburg, SC Flame Test Center*
# Cable Jacket Characteristics

<table>
<thead>
<tr>
<th>Jacket Material*</th>
<th>Fire Resistant</th>
<th>LSZH</th>
<th>Oil and Chemical Resistant</th>
<th>Flexibility</th>
<th>Abrasion Resistant</th>
<th>Temp Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>OKOLON®-TP</td>
<td>GOOD</td>
<td>NO</td>
<td>BETTER</td>
<td>BETTER</td>
<td>FAIR</td>
<td>BETTER</td>
</tr>
<tr>
<td>OKOLON®-TS</td>
<td>BEST</td>
<td>NO</td>
<td>BEST</td>
<td>BEST</td>
<td>BEST</td>
<td>BEST</td>
</tr>
<tr>
<td>OKOCLEAR®-TP</td>
<td>GOOD</td>
<td>YES</td>
<td>GOOD</td>
<td>GOOD</td>
<td>FAIR</td>
<td>FAIR</td>
</tr>
<tr>
<td>OKOCLEAR®-TS</td>
<td>BEST</td>
<td>YES</td>
<td>BEST</td>
<td>BEST</td>
<td>BEST</td>
<td>BEST</td>
</tr>
<tr>
<td>OKOLENE®-PP</td>
<td>NO</td>
<td>NO</td>
<td>GOOD</td>
<td>FAIR</td>
<td>BEST</td>
<td>FAIR</td>
</tr>
<tr>
<td>OKOLENE®-LLDPE</td>
<td>NO</td>
<td>NO</td>
<td>GOOD</td>
<td>FAIR</td>
<td>BEST</td>
<td>FAIR</td>
</tr>
<tr>
<td>X-OLENE®</td>
<td>NO</td>
<td>NO</td>
<td>GOOD</td>
<td>FAIR</td>
<td>GOOD</td>
<td>BEST</td>
</tr>
<tr>
<td>X-OLENE®-FMR</td>
<td>GOOD</td>
<td>NO</td>
<td>GOOD</td>
<td>FAIR</td>
<td>GOOD</td>
<td>BEST</td>
</tr>
<tr>
<td>OKOSEAL®</td>
<td>NO</td>
<td>NO</td>
<td>FAIR/GOOD</td>
<td>GOOD</td>
<td>FAIR</td>
<td>FAIR</td>
</tr>
<tr>
<td>OKOSEAL®-FR</td>
<td>GOOD</td>
<td>NO</td>
<td>GOOD</td>
<td>GOOD</td>
<td>FAIR</td>
<td>FAIR</td>
</tr>
<tr>
<td>OKOSEAL®-LT</td>
<td>GOOD</td>
<td>NO</td>
<td>GOOD</td>
<td>GOOD</td>
<td>FAIR</td>
<td>BEST</td>
</tr>
</tbody>
</table>

* See material description on page 2
District Offices, Manufacturing Plants & Service Centers

Atlanta District Office
(770) 928-9778
FAX: (770) 928-0913
E-Mail: atlanta@okonite.com

Birmingham District Office
(205) 655-0390
FAX: (205) 655-0393
E-Mail: birmingham@okonite.com

Boston District Office
(617) 625-1900
(781) 749-3374
FAX: (603) 624-2252
E-Mail: boston@okonite.com

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

Chicago District Office
(312) 961-3100
FAX: (312) 961-3273
E-Mail: chicago@okonite.com

Cincinnati District Office
(513) 771-2122
FAX: (513) 771-2126
E-Mail: cincinnati@okonite.com

Cleveland District Office
(216) 926-9181
FAX: (216) 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) 255-5531
FAX: (303) 255-3128
E-Mail: denver@okonite.com

Hartford District Office
(860) 258-1900
FAX: (860) 258-1903
E-Mail: hartford@okonite.com

Houston District Office & Service Center
(713) 821-5500
FAX: (281) 821-7855
E-Mail: houston@okonite.com

Kansas City District Office & Service Center
(913) 422-6958
FAX: (913) 422-1647
E-Mail: kansas@okonite.com

Los Angeles District Office
(562) 590-3070
FAX: (562) 590-3139
E-Mail: losangeles@okonite.com

Minneapolis District Office
(763) 432-3618
FAX: (763) 432-3618
E-Mail: minneapolis@okonite.com

New Orleans District Office
(504) 467-1920
FAX: (504) 467-1926
E-Mail: neworleans@okonite.com

New York District Office
(718) 742-8040
NY (212) 239-0950
FAX: (973) 742-2156
E-Mail: newyork@okonite.com

Philadelphia District Office
(215) 931-0595
(215) 567-5739
FAX: (205) 931-1103
E-Mail: philadelphia@okonite.com

Phoenix District Office
(480) 838-8596
FAX: (480) 897-8924
E-Mail: phoenix@okonite.com

Pittsburgh Service Center
(724) 399-4000
FAX: (724) 899-4320
E-Mail: pittsburgh@okonite.com

Portland District Office & Service Center
(503) 598-0598
FAX: (503) 620-7447
E-Mail: portland@okonite.com

Salt Lake District Office
(801) 255-5531
FAX: (801) 255-3128
E-Mail: saltlake@okonite.com

San Francisco District Office
(925) 830-0801
FAX: (925) 830-0954
E-Mail: sanfrancisco@okonite.com

Tampa District Office
(813) 627-9400
FAX: (813) 246-4705
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
FAX: (201) 825-9026
E-Mail: ramsey@okonite.com