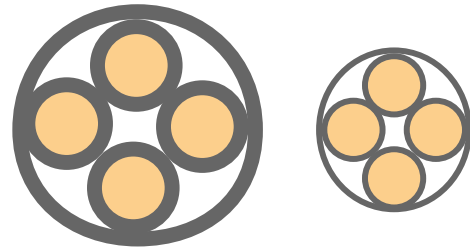


Thin-Wall Technology Allows You to Do More with Less

C-Lite cables use advanced thin-wall insulation and jacket technology to reduce the size and weight of cables—without reducing the electrical or mechanical properties. In large-scale applications, such as offshore drilling platforms, the savings can be dramatic.



Standard wall

Thin wall

Smaller Size

Compared to traditional cables, C-Lite cable provides the following benefits from an installation viewpoint:

- Installs quicker into the vessel or module (customer installations have shown that the cables can be routed 30% faster than traditional cable)
- Permits tighter bend radii
- Requires smaller cable tray and ancillaries (which also reduce installation time and physical purchase cost)
- Allows more equipment to be connected within the same space

Environmental Ruggedness

- Provides less combustible material in the event of a fire
- Generates less smoke than traditional materials during a fire
- Offers inherently flame-retardant cores (this is in addition to the bedding and sheathing materials which also comply with the requirements of NEK606)
- Fluid- and oil-resistant cable components provide peace of mind

Reduced Weight

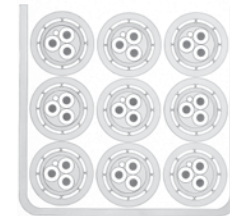
The reduced weight of C-Lite cable:

- Delivers more freedom to provide additional production equipment on the installation
- Allows more densely populated installations on cable trays designed for traditional cable products
- May allow the use of less steel in the superstructure or allow higher design safety margins

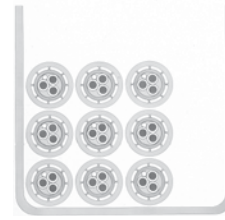
All these benefits will become more important as:

- Drilling depths increase worldwide
- Deck space and footprint size become more important as more systems become automated

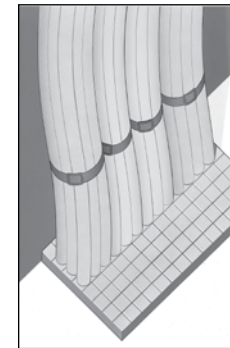
Save Space



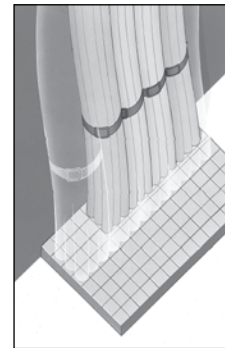
Cable trays



A typical saving in the cable tray volume can exceed 40%



Transits



Over 40% savings in area

TE's thin-wall technology can save as much as 40% in cable trays. Such savings result in smaller trays, more cables per tray, lighter supports, and smaller cable glands. And higher temperature ratings mean higher current densities, increased safety, and long-term reliability.

Save Money

C-Lite cable thin-wall technology reduces installed costs up to 15%. Not only do the reduced size and weight make installation faster and easier, but additional savings are realized through the use of smaller, lighter trays, racks, and other cable management hardware. What's more, resistance to hot diesel fuels, oils, grease, drilling fluids, and mechanical abuse means long-term reliability and lower maintenance costs.

FOR MORE INFORMATION

Technical Support

Internet: www.te.com/ADM
 E-mail: product.info@te.com
 USA: +1 (800) 522-6752
 Canada: +1 (905) 475-6222
 Mexico: +52 (0) 55-1106-0800
 C. America: +52 (0) 55-1106-0800
 South America: +54 (0) 11-4733-2200
 Germany: +49 (0) 6251-133-1999
 Great Britain: +44 (0) 0800-267666
 France: +33 (0) 1-34-20-8686
 Netherlands: +31 (0) 7362-46-999
 China: +86 (0) 400-820-6015



C-Lite Cables

Weight-Saving, Space-Saving Cable Solutions for Offshore and Marine Applications

The Full Range of C-Lite Cables

Multiconductor, Multipair, Multitriples, Quad
 Unshielded, Foil Shielded, Braid Shielded
 Armored or Unarmored
 150/250 V for Signal Applications
 600/1000 V for Power Applications
 Metric and AWG Conductor Sizes Available
 Cables from 0.5 to 10 mm²

te.com/offshore

© 2011 and 2012 Tyco Electronics Corporation. All Rights Reserved.

4-1773460-9 ADM/RRD 5M 05/2011

C-Lite, Raychem, Zerohal, TE Connectivity, TE connectivity (logo) and TE (logo) are trademarks.

While TE has made every reasonable effort to ensure the accuracy of the information herein, nothing herein constitutes any guarantee that such information is error-free, or any other representation, warranty or guarantee that the information is accurate, correct, reliable current. The TE entity issuing this publication reserves the right to make any adjustments to the information contained herein at any time without notice. All implied warranties regarding the information contained herein, including, but not limited to, any implied warranties of merchantability or fitness for a particular purpose are expressly disclaimed. The dimensions herein are for reference purposes only and are subject to change without notice. Specifications are subject to change without notice. Consult TE for the latest dimensions and design specifications.



TE: Leadership in Connectivity

With a 50-plus year history of leadership, TE Connectivity is a global company that designs and manufactures over 500,000 products that connect and protect the flow of power and data inside the products that touch every aspect of people's lives. Our nearly 100,000 employees, including 8000 engineers, partner with customers in virtually every industry—from consumer electronics, energy and healthcare, to automotive, aerospace and communication networks—enabling smarter, faster, better technologies to connect products to possibilities. More information on TE can be found at: <http://www.te.com/adm>.

Advanced Materials for Advanced Products

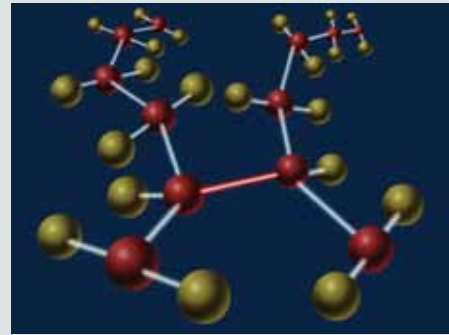
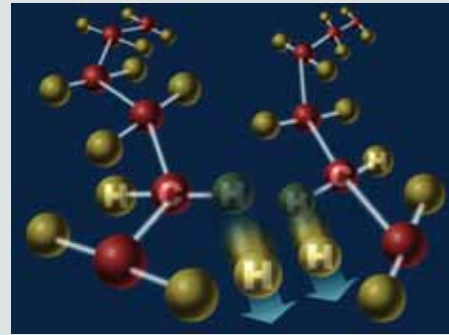
Our Raychem brand holds a reputation for leadership in material science technologies. Raychem wires and cables are recognized worldwide and are backed by a history of proven performance, reliability, innovation and quality.

Developed from our expertise in materials, C-Lite wires and cables have been engineered to meet the requirements of DNV type approval program number 6-827.11.1 and, as such, is the light weight cabling solution for challenging marine applications.

C-Lite Wires and Cables Save Space and Weight

TE's expertise in materials and related processing allows the use of unique thin-wall insulation systems. The use of halogen-free cable jackets completes the product offering. This means that C-Lite cable products can offer significant size and weight reductions when compared to conventional insulation systems, while at the same time meeting key criteria such as low-fire-hazard performance and mechanical robustness.

Reduce the Wall Thickness,
Not the Performance



Expertise in polymer chemistry allows TE to create thin-wall insulations. Our unique formulations go beyond off-the-shelf polymers to ensure performance equivalent to or exceeding comparable thick-wall cables.

Radiation cross-linking allows thin-wall insulation and jacket materials that offer the additional rugged features found in our C-Lite CL105 and CL105FR cables. Cross-linked materials are known for being physically rugged even at elevated temperatures, remaining thermally stable, and offering excellent resistance to fluids and chemicals.

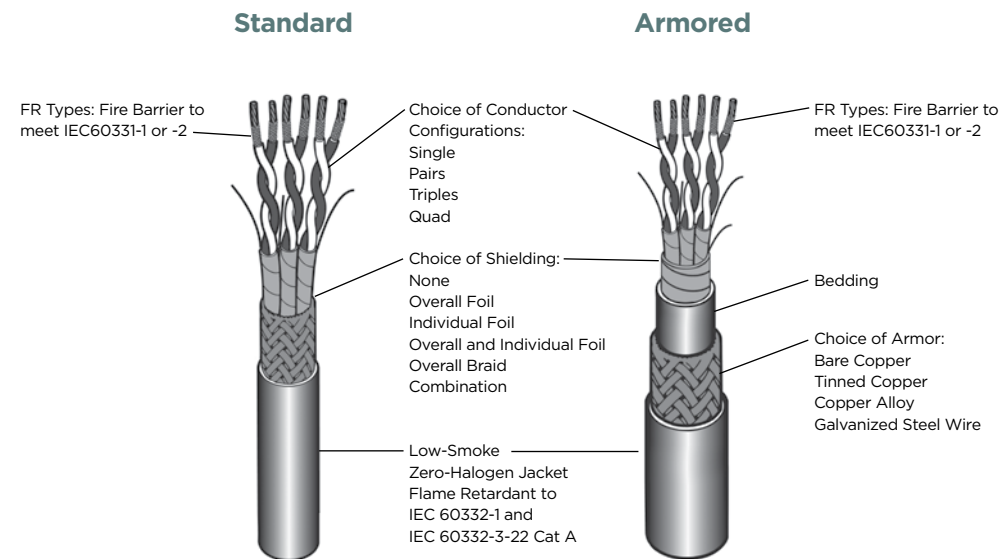
TE pioneered cross-linked insulation for wire and cable, initially for the aerospace industry. To achieve cross-linking, a polymer product is exposed to high-energy radiation. This is generally done by exposure to high-energy-electron beta radiation using an electron beam.

CL105 and CL105F Cables

Standard, Armored, and Fire-Resistant Cables
IEC 60092-350 SHF-2 Rated to Resist Oil, Fuels, Petroleum Mud

C-Lite CL105 cables use a cross-linked jacket to achieve a smaller, lighter cable while offering excellent resistance to oils, solvents, fuels, and petroleum mud and meeting the demanding requirements of IEC 60092-350 SHF-2. Our Zerohal EN jacket is highly flame retardant, generates low smoke, and has a low toxicity index and reduced corrosive gas emissions.

C-Lite CL105F cables offer all of the benefits of our standard CL105 range, with the addition of a mica-based fire barrier wrapped around each conductor that allows continued operation of critical safety and control circuits under some fire conditions. CL105F cables are designed to exceed the requirements of IEC 60331-1 or 2, delivering performance in excess of 120 minutes at a temperature of 1000°C.



C-Lite Cables for Every Need



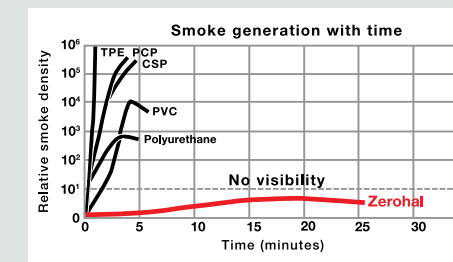
From general power and lighting to communication, control, and instrumentation applications, the C-Lite cable family is designed for use in a variety of marine applications.

Approvals

C-Lite cables are approved internationally for maritime use.

American Bureau of Shipping USA
Bureau Veritas France
China Classification Society China
Det Norske Veritas Norway
Germanischer Lloyd Germany
Korean Register Korea
Lloyds Register* UK
Nippon Kaiji Kyokai Japan
Russian Register of Shipping Russia

*Lloyds Register approval on a project-by-project basis



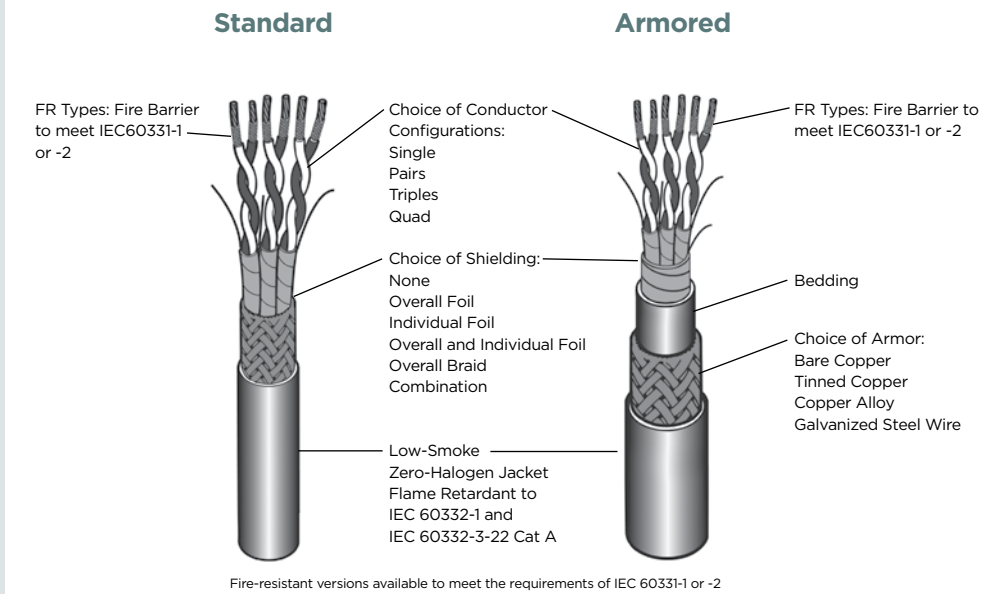
Our thin-wall technology includes low-smoke and zero halogen wire and cable—which emit low levels of toxic gases and generate considerably lower levels of smoke so that visibility is maintained in an emergency. Our zero-halogen cables are highly flame retardant and generate very low levels of smoke, acids and gases.

CL90 and CL90F Cables

Standard, Armored, and Fire-Resistant Cables
IEC 60092-350 SHF-1 Jacketed

C-Lite CL90 cables are designed to exceed the requirements of IEC 60092-350 SHF-1. The cables are suited to applications not requiring a jacket resistant to oil and other corrosive fluids. CL90 cables feature a zero-halogen, low-fire-hazard jacket and are available in a wide range of conductor sizes and configurations, including a fire resistant version.

Offering all the features of our standard range, CL90F cables use a mica-based fire barrier wrapped around each conductor allowing continued operation of critical safety and control circuits under some fire conditions. CL90F cables are designed to exceed the requirements of IEC 60331-1 or 2, delivering performance in excess of 120 minutes at a temperature of 1000°C.



Fire-resistant versions available to meet the requirements of IEC 60331-1 or -2



Improved Fire Resistance



Standard limited-fire-hazard cables offer low combustibility to minimize the growth and spread of a fire. They also produce low levels of corrosive gases, carbon monoxide, and smoke and can fail within minutes.

The composite insulation system of C-Lite cables combines limited-fire-hazard performance with fire resistance to allow prolonged operation during firefighting and evacuation. They are an excellent choice for alarms, emergency lighting, and controls.

Fire resistance is achieved by coating the conductor with an inorganic mica-based material that resists the high temperatures of a fire. This material is also an efficient insulator which protects the conductors from short circuiting as the insulation system of the cable is burned away.

C-Lite CL90F and CL105F cables meet the following flammability requirements:

- **Flame Retarded IEC 60332-1 and IEC 60332-3-22 Cat A**
- **Fire Resistant IEC 60331-1 or -2***

*IEC 60331-1 applies to cables with an overall diameter greater than 20 mm; IEC 60331-2 applies to cables with an overall diameter less than 20 mm