

# MIL-DTL-24640 Shipboard Cables Lightweight Low Smoke

In consideration of circuit density, weight and size constraints, the U.S. Navy produced the MIL-DTL-24640 cable specification. The cables covered by this specification are low smoke, flame resistant constructions which are significantly lighter in weight and smaller in diameter than those specified in the MIL-DTL-24643 specification. MIL-DTL-24640 cables are used to interconnect systems where weight and space savings are critical.

MIL-DTL-24640 is not a direct replacement for the MIL-DTL-24643 or MIL-DTL-915 specifications. The overall diameters have been reduced which may change the electrical characteristics. MIL-DTL-24640 should not be used to replace existing MIL-DTL-24643 and MIL-DTL-915 constructions, unless a comprehensive evaluation has been completed.

Product Description	Specification	Link
<p><b>Electronic, communication and instrumentation: MIL-DTL-24640</b> Slant Sheets 1 thru 13 utilize insulated conductors manufactured to MIL-W-81044/12, to which Rockbestos-Surprenant is a QPL manufacturer. These constructions are not watertight. The overall jacket is an irradiation cross-linked modified low smoke polyolefin that is compounded without halogens.</p>	M24640 Slant 1 Thru Slant 13	14
<p><b>Electronic, communication and instrumentation-watertight: MIL-DTL-24640</b> Slant Sheets 14 thru 18 utilize insulated conductors manufactured to MIL-W-81044 except 7 strand water-blocked conductors, to which Rockbestos-Surprenant is a QPL manufacturer. The constructions are filled to eliminate the potential of water traveling through the interstices. The overall jacket is an irradiation cross-linked modified low smoke polyolefin that is compounded without halogens.</p>	M24640 Slant 14 Thru Slant 18	15
<p><b>Low power distribution with circuit integrity-watertight: MIL-DTL-24640</b> Slant Sheets 19 thru 24 utilize insulated conductors manufactured with Mica/Polyimide tapes, which provide for circuit integrity in case of a catastrophic fire. The constructions are filled to eliminate the potential of water traveling through the interstices. The overall jacket is an irradiation cross-linked modified low smoke polyolefin that is compounded without halogens.</p>	M24640 Slant 19 Thru Slant 24	16

## Rockbestos-Surprenant Cable Corporation

20 Bradley Park Road  
East Granby, CT 06026-1102

Tel: (860) 653-8300 or 800-327-7625

Fax: (860) 653-8391

[www.r-scc.com](http://www.r-scc.com)



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