

Shipboard Cable Specifications

MIL-C-24640

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In consideration of circuit density, weight, and size problems, the US Navy produced the MIL-C-24640 cable document. The cables covered by this specification are low smoke, flame resistant constructions, but they are significantly lighter in weight and smaller diameter than other commonly used shipboard cables. MIL-C-24640 cables are used to interconnect systems where weight and space savings are critical, however they are not direct replacement conversions.

Since the overall diameters have been reduced and electrical characteristics may have been changed, they should not be used to replace existing MIL-C-915 or MIL-C-24643 constructions unless a comprehensive electrical and physical system evaluation or redesign has been completed.

MIL-C-24640/1-18 utilize insulated conductors manufactured to MIL-W-81044/12 to which Rockbestos-Surprenant is a QPL manufacturer. Item call-outs containing "W" indicate a water blocked cable.

MIL-C-24640/19-24 contain conductors insulated with mica/Kapton[®]. These six slash sheets cover circuit integrity cable.

All cables are jacketed with low smoke, zero halogen irradiated polyolefin.

MIL-C-24643

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Due to concern about flammability, smoke, and toxicity, the US Navy introduced the MIL-C-24643 cable specification. Generally, this document provides low smoke, flame retardant cables that are approximately equivalent in size, weight, and electricals to many of the older MIL-C-915 constructions. It has been mandated that these newer cables must be used on all new constructions and major Navy ship modernization projects.

MIL-C-24643 covers many types of cable constructions and utilizes insulation systems of irradiated polyolefin, silicone, or EPR depending on slash sheet. All cables are jacketed with low smoke, zero halogen irradiated polyolefin.