

Finishes

**Electroless Nickel**

Cost	\$ \$ \$ \$ \$ \$
Conductivity	++ ++ ++ ++ ++
Corrosion Resistance	⌘ ⌘ ⌘ ⌘ ⌘
Operating Temperature	-65 to +200°C
Glenair Code	M

Aluminum plated with electroless nickel offers excellent conductivity, wear resistance, and adequate corrosion resistance. Typically specified on electrical connectors and accessories used in avionics boxes, exoatmospheric equipment, and missiles, electroless nickel is a good choice when exposure to marine or corrosive atmospheres is not a primary concern. The plating process is purely chemical, and once started, is autocatalytic (it runs by itself).

**Stainless Steel**

Cost	\$ \$ \$ \$ \$ \$
Conductivity	++ ++ ++ ++ ++
Corrosion Resistance	⌘ ⌘ ⌘ ⌘ ⌘
Operating Temperature	-65 to +200°C
Glenair Code	Z1, ZM

Stainless steel offers unbeatable strength and protection from environmental stress if durability and corrosion resistance are more important than cost and weight. Typically found on aircraft engines, landing gear, geophysical equipment, armored vehicles and marine applications, passivated stainless steel is widely specified throughout the interconnect industry. Also offered with nickel and cadmium plating for improved conductivity, stainless steel is an obvious alternative to cadmium if cost and weight are not an issue.

**Zinc Nickel, Black**

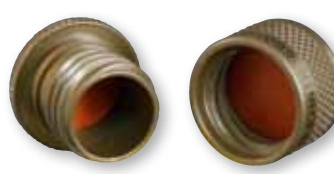
Cost	\$ \$ \$ \$ \$
Conductivity	++ ++ ++ ++ ++
Corrosion Resistance	⌘ ⌘ ⌘ ⌘ ⌘
Operating Temperature	-65 to +175°C
Glenair Code	ZR

RoHS-compliant black zinc-nickel is approved for MIL-DTL-38999, AS85049 and other major military specifications as a replacement for cadmium and hexavalent chromium platings. The non-reflective finish and good conductivity make the Glenair ZR finish a leading choice for cadmium-free tactical systems. Corrosion resistance is comparable to cadmium, and the ZR finish is backward-compatible with cad-plated connectors and accessories.

**Nickel-PTFE**

Cost	\$ \$ \$ \$ \$ \$
Conductivity	++ ++ ++ ++ ++
Corrosion Resistance	⌘ ⌘ ⌘ ⌘ ⌘
Operating Temperature	-65 to +175°C
Glenair Code	MT

Now approved for MIL-DTL-38999 and MIL-DTL-83513, Glenair's 1000 Hour Grey™ meets the need for a cadmium replacement with excellent conductivity, wear resistance and corrosion protection. This extremely durable finish is gun-metal gray. A proprietary preliminary undercoat is followed with a composite coating of electroless nickel phosphorus and polytetra-fluoroethylene (PTFE). An organic topcoat provides sealing and added resistance to SO₂ salt fog. Ni-PTFE is approved for the Joint Strike Fighter and offers extremely good lubricity.

**Cadmium Olive Drab**

Cost	\$ \$ \$ \$ \$ \$
Conductivity	++ ++ ++ ++ ++
Corrosion Resistance	⌘ ⌘ ⌘ ⌘ ⌘
Operating Temperature	-65 to +175°C
Glenair Code	NF

Cadmium plated aluminum has been the unchallenged workhorse of the defense/aerospace industry. Offering up to 1000 hours of salt spray protection when deposited over electroless nickel, cadmium is highly conductive, and provides good lubricity and resistance to galling. As plated, cadmium has a silvery appearance. A subsequent chromic acid passivation bath creates a chromate topcoat over the cadmium, enhancing corrosion protection. Olive drab chromate is widely used, followed by gold chromate and clear chromate.

**Zinc-Nickel Olive Drab**

Cost	\$ \$ \$ \$ \$ \$
Conductivity	++ ++ ++ ++ ++
Corrosion Resistance	⌘ ⌘ ⌘ ⌘ ⌘
Operating Temperature	-65 to +175°C
Glenair Code	ZN

Recently added to MIL-DTL-38999 and MIL-DTL-83513, zinc-nickel plated aluminum has become a cost-effective alternative to cadmium. Available with olive drab or black chromate conversion coatings, zinc-nickel plated aluminum is commonly found on soldier systems and military airframe applications.

Dimensions in inches (millimeters) and are subject to change without notice.

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