

# RoHS Compliant Plating Option for Composite Thermoplastic Connectors and Accessories



The 30 May 2008 MIL-DTL-38999 Rev L specification provides guidance on the use of alternative parts with less hazardous or nonhazardous materials. In this regard, the specification provides for a number of alternative plating materials. Users are directed to select the least hazardous plating material that meets the form, fit and function requirements of their application.

Glenair would like to draw our customer's attention to one of the finish options from this specification that conforms to this guidance:

**T** – Environment resisting Nickel fluorocarbon polymer. Conductive Nickel with fluorocarbon polymer additives over a suitable underplate to withstand 500 hours of dynamic salt spray testing.

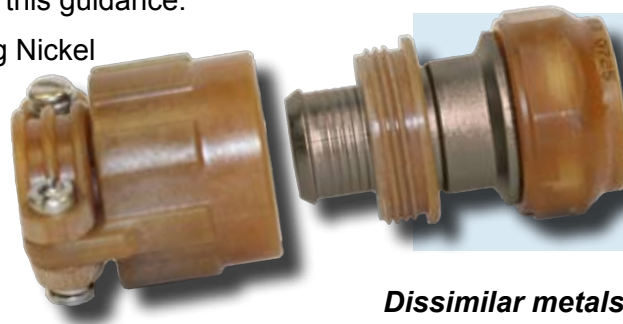
This MIL-DTL-38999L "T" plating solution is cadmium and hexavalent chromium free, which allows it to be defined as RoHS compliant. NOTE: as of this printing the SAE AS85049 committee has not yet defined plating codes for this finish.

Glenair has developed its own Ni-PTFE surface finish that meets all the D38999 requirements but radically outperforms standard nickel fluorocarbon polymer finishes in the most important areas including an amazing 2000 hours dynamic salt spray resistance when plated on composite parts.

This Glenair nickel fluorocarbon polymer plating has been assigned the **XMT** code in the plating tables in this composite catalog. Here are just some of the key performance attributes:

**Temperature Resistance:** Glenair's **XMT Ni-PTFE 1000 Hour Grey™** finish is rated from -65°C to +175°C.

**Plating adhesion:** When tested as specified in 4.5.5, there shall be no blistering, peeling, flaking or separation of plating or other damage detrimental to the operation of the part.



**Glenair Nickel-PTFE 1,000 Hour Grey™ RoHS Compliant Plating is Now Available for All Composite Connector and Accessory Products.**

**Dissimilar metals and compatible couples:** The 1000 Hour Grey™ finish satisfies prohibitions against dissimilar metal coupling as specified in MIL-STD-889.

**Shell-to-shell conductivity (millivolts):** The **XMT** finish is rated at 2.5 millivolt drop potential.

**Sulfur Dioxide Resistance:** The **XMT** finish passes the requisite 336 hours resistance to Sulfur Dioxide.

Please note that **XMT** may also be applied to aluminum alloy and stainless steel, in which case the composite marker "X" is dropped and the plating code changes to **MT**.