

MIL-DTL-38999 Series I, II and III Environmental Class Connectors Material Specifications



TABLE I: MATERIALS

Shell, Barrel, and Coupling Nut	Aluminum alloy 6061 per ASTM-B211
Front and Rear Insulators	Glass-filled LCP in accordance with MIL-M-24519, Type GLP-30F
Contact Retention Clip	Beryllium copper, heat-treated, unplated
Grommet, Peripheral Seal and Interfacial Seal	Blended elastomer, 30% silicone per ZZ-R-765, 70% fluorosilicone per MIL-R-25988
Pin / Socket Contacts (Environmental)	Copper Alloy / Gold Plate
Socket Contact (Hermetic)	Copper Alloy, Gold Plated IAW ASTM B488, Type 3, Code C
Adhesives	Silicone and epoxy
Potting Compound: PCB and Solder Cup	High-strength epoxy, Hysol EE4215.

TABLE II: POPULAR ENVIRONMENTAL CLASS CONNECTOR FINISHES

233-105	Material	Finish Description
ME	Aluminum	Electroless Nickel
MA	Aluminum	Electroless Nickel
MT	Aluminum	Ni-PTFE (Nickel Fluorocarbon Polymer)
TZ	Aluminum	Tin-Zinc (SnZn) Over Electroless Nickel over Suitable Underplate
NF	Aluminum	Cadmium Plate Olive Drab over Electroless Nickel
ZR	Aluminum	Zinc Nickel, Black over Suitable Underplate
MN	Aluminum	Tri-Nickel Alloy
XW	Composite	Cadmium Olive Drab over Electroless Nickel
XM	Composite	Electroless Nickel
Z1	Stainless Steel	Passivate
ZL	Stainless Steel	Electrodeposited Nickel
AB	Marine Bronze	None (Clean Only)