Glenair CostSaver Composite EMI/RFI Junction Boxes Design Guide - Step Eight

Bombardier Toxicity and Federal Railroad Adminiatration Flame Spread, Smoke Density and Toxicity

This requirement covers material flammability and toxicty IAW with both aircraft and rail transportation requirements. Testing was completed on actual molded box samples, in the medium gray color, made from Ultem 2300-GY4001. Testing consisted of flammability IAW ASTM E 162, rate of smoke generation IAW ASTM E 662 and Bombardier SMP 800-C toxic gas generation. The Glenair composite box samples passed all tests. For additional information please request test report No. 08-002-923(B) for Bombardier toxicity, and test report No. 08-002-923(A) for surface flammability and rate of smoke generation.

Corrosion resistance and weight reduction are just part of the story for these Glenair junction box application examples

Future Soldier:

Weight reduction was the principal goal in selecting the Glenair composite box for the JEDI Warrior Program. The boxes house Lithium battery packs used to power video image and battlefield data collection systems carried by the soldier. The interconnect system and its power supply must be able to withstand the rigors of exposure to mud, dust and abusive handling. The complete solution from Glenair also included our Series 800 "Mighty Mouse" Connector and overmolded cable sets.

Ministry of Defense:

Glenair composite boxes for the UK Ministry of Defense were subjected to a rigorous testing program, including high-duration shock, EMI and salt-spray corrosion resistance. The MOD has chosen the Glenair boxes as standard replacements for existing aluminium junction boxes which became too expensive to maintain due to high-impact breakage and corrosion. The Glenair boxes now serve in submarines, missile-frigates and other shipboard applications.

Step Eight: Select Additional Penetrations for **Hole-Cap Assemblies**

Composite Compos



Junction boxes may be equipped with additional penetrations for future expansion needs, or for applications where one box design will be used in several different configurations. Glenair supplies a hole-cap assembly to seal unused penetrations against the environment. The hole-cap assemblies are rated to IP67 for particle and moisture protection.

Glenair can produce virtually any design of custom cap or lid required. Please consult the factory.



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