

Chemical Agent Testing for 12 Common Plastic Materials Used in Glenair Products

Glenair has completed the chemical portion of testing on 12 materials (list below) to evaluate suitability for programs requiring Chemical Biological Radiological and Nuclear (CBRN) decontamination. This evaluation does not contain any testing regarding Biological, Radiological or Nuclear contamination/decontamination.

While the results of this chemical testing covers only contamination and decontamination of the Glenair materials, the final decision of the material suitability should be based on several factors including, but not limited to: (1) The entire vehicle or component; it's mission and components; (2) the local environment such as wind, rain, temperature, humidity and time; and (3) The amount and type of exposure and temperature, etc. (4) Whether the material will be used external or internal to the vehicle. It is assumed that this evaluation will be done by a materials engineer at the OEM level.

The agents used in the test are: HD, TGD and VX. The decontaminant was Super Tropical Bleach (STB). There are four separate test results presented. Material hardness to the chemical agent, material hardness to the decontamination agent, contact hazard, and vapor desorption. The first two results were positive for all 12 materials. The third set of numbers represents contact hazard. These figures must be considered with other factors from the OEM engineer who must determine the level of skin contamination received by an unprotected person during various operations where the material is being handled. The fourth numbers are the vapor desorption readings. These represent the contributions each material makes to the overall system performance.

There are two levels of "challenge" in CBRN testing. External (10 grams/m2) and Internal (1 gram/m2). Glenair had only the external (most severe) testing conducted with these results. It can be assumed that the contact and vapor desorption readings for an internal evaluation will be one tenth of the external numbers. Again, this determination should be made at the OEM materials manager level.

Glenair Plastic Materials Tested

- 1. Elastomeric shrink boot compound 770-2025
- 2. Elastomeric shrink boot compound 770-2050
- 3. Elastomeric shrink boot 770-2055
- 4. Epoxy shrink boot 2-Part Adhesive, 779-001
- 5. Polyetherimide thermoplastic #1
- 6. Polyetherimide thermoplastic #2
- 7. Electrical cable EPDM jacket material #1
- 8. Electrical cable EPDM Jacket material #2
- 9. Durelectric/Blue Jacket jacket material
- 10. Durelectric/Blue Jacket jacket material (4 hour post bake)
- 11. Durelectric/Blue Jacket overmold material
- 12. Viton jacket material

Please contact the Factory for more information or for a copy of the test report.

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