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General ThermoDynamics Solder-coated Core Radiators

General ThermoDynamics currently recommends using solder-coated fins for radiators in corrosive environments. We believe that solder-coated fins offer better protection against corrosive environments than Copon coating or Heresite coating. Solder-coated fins are completely immersed (100% covered) before they are cut to size. This has been found to be more effective than a dip or spray application (copen) or a bake-on application (heresite) where the coatings do not cover 100% of the fin material (in the center) and thus allow corrosion.

An independent lab conducted a corrosion resistance test to evaluate the relative durability of copon coating vs. solder. Both copon and solder-coated panels were salt spray tested to ASTM B-117 for 168 hours. The test yielded the following results:

- ◆ The copon coating performed poorly on corrosion resistance. Blistering was apparent at the scored area after 48-72 hours. Solder coating, on the other hand, showed almost no noticeable change.
- ◆ The adhesion of copon to both steel and copper is significantly worse than solder coating. Ordinary adhesive tape can easily remove the copon coating while the solder coating was not affected.

General ThermoDynamics currently has multiple radiator units in corrosive environments such as: off-shore drill rigs, oil fields, landfills, and waste water treatment centers. Over the past several years, we have not experienced any problems with the solder-coated fins deteriorating excessively due to Na or H₂S exposure. We are confident in our products and design.

Should you have any questions, please contact our Sales Dept personnel at the address below.

Thank you for your continued interest in General ThermoDynamics cooling systems and components.

General ThermoDynamics