



TECHNICAL BULLETIN

F-001

Date: February 11, 2004

Scope: Effects of Ultra Violet on Cathodic Epoxy Electro-Coating.

Ultra Violet light is increasingly being utilized as a sanitizing agent in mechanical heating and cooling systems. While the effects as a sanitizing agent are positive there may be an undesirable side effect Cathodic Epoxy Electro-Coating. ClimateMaster, as well as many other manufacturers, are now using varying types of Electro-Coatings on various system components to increase the resistance to corrosive environmental elements that have been leading to premature component failures.

ClimateMaster has chosen a Cathodic Epoxy coating for all residential and select commercial air coils. While Cathodic Epoxy exhibits superior resistance to chemical corrosion it is not stabilized to resist the effects of UVA or UVB light. When Cathodic Epoxy is exposed to the UV lighting the coating will deteriorate. This will be first evidenced by discoloration of the coating surface which will resemble powder or mildew. The coating will disintegrate at the molecular level and will eventually lead to the loss of the protective benefits of the coating. Coils that have been coated with the Cathodic Epoxy will be completely covered and will be black in color. Uncoated coils will be metallic in color. Uncoated coils will not be affected by the application of UV lighting.

To insure the Cathodic Epoxy is not being damaged by UV light it is recommended the use of UV lights be restricted to a manner in which the surface of the coated parts will not be directly exposed to the UV light. This recommendation would prohibit the use of UV lighting in the cabinet of the unit or in the return air duct when the UV light could reach the surface of the coil. Air filters covering the face of the coil will not be considered adequate protection.

For further information regarding Cathodic Epoxy coating and/or UV lights contact ClimateMaster Technical Service at 405-745-6000.