AI Technology, Inc (AIT) Develops Conformal Coatings to Protect Electronics in Extreme Environments

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Electronic and electrical devices used outdoors or near the sea require the use of protective coatings commonly referred to as conformal coatings. However, traditional acrylic, epoxy and polyurethane conformal coatings are not hydrophobic and do not provide adequate protection in heavy moisture and are particularly susceptible to degradation in salt-fog environments. Silicone based conformal coatings, while hydrophobic to water, allow for very high moisture penetration and are also susceptible to moisture and salt-fog induced corrosion.

Critical infrastructures such as electrical power stations need protection against corrosion in high voltage contact points. Electrical switches and other controlling electronics in industrial environments require protective coatings that can withstand direct water immersion and "acid rain" induced degradation. Additionally, outdoor electronics such as those under the hood of automobiles require extended moisture protection during the heat and humidity of summer weather.

Responding to this pervasive need for conformal coatings, AI Technology (AIT) is proud to present its improved Prima Protect™ coating line for moisture and salt fog protection.

Two chief Prima Protect™ Coatings are CC7090E and CC7130-E. Both products offer extreme moisture, salt fog and even direct immersion protection for electrical contacts, electronic circuits and devices, printed wiring boards, and structures made with metal, wood and plastics. AIT’s Prima Protect™ coatings are molecularly flexible for great adhesion and yet resist abrasion.

AIT’s coatings have added flexibility to withstand low temperature cracking, fungicide to provide additional protection in submerged environments, and are non-silicone and electrically insulating so to not interfere with neighboring electronics.

Both CC7090E and CC7130-E are designed to meet all of the IPC CC830 requirements with UV inspection dye and fungi-resistance. Additionally, both coatings can be brushed, dipped or sprayed on and are flexible, highly hydrophobic and provide superior protection against corrosion in water, salt water, fog and many other types of environments.

Whether you are looking to coat your outdoor equipment, batteries, wiring, or even boats, AIT’s Prima Protect™ Coatings are good on virtually any surface. Consult an AIT application engineer to get a personalized recommendation for your application today!
About AI Technology, Inc. (AIT):

Since pioneering the use of flexible epoxy technology for microelectronic packaging in 1985, AI Technology, Inc. (AIT) has been one of the leading forces in development and patented applications of advanced materials and adhesive solutions for electronic interconnection and packaging. AI Technology, Inc. (AIT) offers some of the most reliable adhesives and underfills for die bonding for the largest dies, stack-chip packaging with dicing die-attach film (DDAF), flip-chip bonding and underfilling and high temperature die bonding for single and multiple-chip modules for applications beyond 230°C. The company continues to provide the best adhesive solution for component and substrate bonding for both military and commercial applications. AIT’s thermal interface material solutions, including our patented phase-change thermal pads, thermal greases and gels and thermal adhesives have set many benchmarks of performance and reliability for power semiconductors, modules, computers and communication electronics.

For an application analysis: http://www.aitechnology.com/analysis/

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