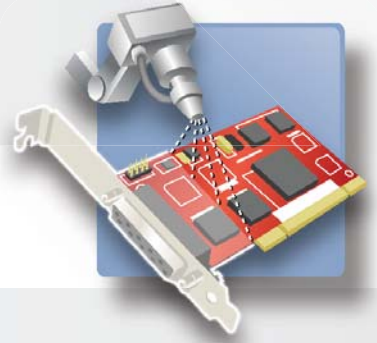


Conformal Coating Options

Conformal coating is a protective non-conductive dielectric layer that is applied onto the printed circuit board assembly to protect the electronic assembly from damage due to contamination, salt spray, moisture, fungus, dust, and corrosion caused by harsh or extreme environments.

It is most commonly applied to products that are used in outdoor environments where heat and moisture are prevalent. Coating may also prevent damage from rough handling, installation, reduction of mechanical and thermal stress. It also acts to protect circuitry and components from abrasion and solvents.



TYPES OF CONFORMAL COATING:

Commonly used conformal coatings are silicone, urethane, and acrylic. The chemical and physical property of the materials is different, so is the degree of protection. The basic characteristics of the materials are described below.

Control offers three different types of Conformal Coatings, but only 1 type of material for each of these coatings (shown below), if a coating is required that Control doesn't offer please contact your sales rep to see if it can be provided to fulfill the requirement.

- **Silicone (Dow 1-2577)**

Silicones are typically used in high temperature environments. It has good moisture and humidity resistance. It has good thermal shock resistance due to its flexibility. Its moisture resistance is similar to urethane and acrylic and Dielectric withstand is lowered than for the other coatings (1100 volts/mil). Its typical temperature range is -65°C to 200°C.

- **Urethane (Conap CE1155)**

Urethane coatings are hard and durable that has excellent resistance to solvents. It has similar moisture resistance to acrylic and silicone. Shrinkages during curing and hard film may stress the electronic components. Temperature range is quite similar to acrylic.

- **Acrylic (Humiseal 1B73)**

Acrylic coatings are typically solvent based and are usually tough, hard, and transparent. It exhibits low moisture absorption and have short drying times. However, this type of coating does not demonstrate resistance to either abrasion or chemicals especially petroleum solvents and alcohol. Its typical dielectric withstand is greater than 1500 volts and has a temperature range of -59°C to 132°C.

PRODUCT SUPPORT & SERVICE INFORMATION

Warranty Information

Control offers a 30-day satisfaction guarantee and 5-year limited warranty.

Sales Support

+1.763.494.4100
sales@control.com

Email, FTP, and Web Support

info@control.com
ftp.control.com
www.control.com

