ACP NOXTAT
NOXTAT™ Static Dissipative Polycarbonate

Description

NOXTAT SD™ polycarbonate sheets are coated with a transparent metal/plastic material that will permanently prevent formation of static electricity on the surface.

The surface has excellent mar and abrasion resistance. Resistance to charge generation, and superior static decay characteristics and cannot be tribocharged.

The product displays excellent control of both electrostatic discharge (ESD) and particulate attraction. Permanent characteristics are not affected by humidity.

We offer two types of NOXTAT SD™ product:

- NOXTAT SDG™ - Ideal for cleanroom glazing, equipment enclosures and desiccator cabinets.
- NOXTAT SDB™ - Intended for use in fabricated parts as well as panels. Flexible for heat bending, it is clear and hard for panel applications.

Applications

NOXTAT SD™ polycarbonate plastic is a sound choice for manufacturing applications where effects of ESD could cause rejects or hidden latent damage to sensitive electronic devices. This product is widely used in the semi-conductor, electronic and micro-manufacturing industries.

It is also used in other industrial applications such as screen assembly, packaging, explosive environments where static discharge must be prevented and applications where sensitive process instrumentation and equipment must be protected from static charge.

The polycarbonate sheet may be fabricated into a wide variety of shapes using the equipment used for uncoated sheet products. The product is not suitable, however, for most heat-formed configurations because the hard cross-linked polymer surface is not designed for heat bending. NOXTAT SDB™ has been designed for heat bending.

When gluing it is necessary to mechanically remove the coating surface to insure a good bond. More information about fabrication is provided in a Technical Information Bulletin.

Some applications have included covers, guards, access panels, machine windows and doors, static control shields, glove boxes, electronic equipment, process instrumentation, conveyor line covers, cleanroom windows and doors, partitions, and pass through modules.

Product Features and Benefits

- Electrostatic decay less than 0.05 seconds per Federal Test Standard 101C, Method 4046-1
  Static decay is only 25% of the standards 2-second maximum. Indicates that product performance will meet or exceed all generally accepted industry specifications.

- Standard surface resistivity of 10^6 to 10^8 ohms per square plus optional availability of a greater range if needed.
  Assures ESD control in a wide range of applications without the need for ionization.

- Permanent static dissipation performance.
  Save high costs of periodic application of temporary topical anti-static coatings.

- Static charge control not affected by humidity.
  Reduces costs of humidification – and costs of damage if the humidifier system fails.

- Uniform surface treatment.
  No conductive discontinuities, typical in topical anti-static treatments or inferior sheet products that may cause charged "hot spots".

- Superior impact resistance.
  Minimizes damage from handling and physical abuse.

- Excellent optical properties.
  Excellent clarity for see through applications.

- Tough abrasion resistance surface.
  The coated surface is harder than the base plastic while protecting the sheet surface.

- Powerful chemical resistance.
  Reduces surface damage from solvents and other chemicals.

- Extremely rigid even under heat
  High thermal resistance features self-extinguishing capabilities equivalent to UL rating 94 V-O and a flash point of 480°F and self-ignition of 700° C.

Product Availability

NOXTAT™ Polycarbonate is available in clear, transparent gray, and transparent bronze colors. Tints for UV filtering and other light filtering are available by special order for applications where some wavelengths may interfere with processing operations.

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