



### NOXTAT™ Acrylic & Polycarbonate

#### NOXTAT™ SDG & SDB

- Electrostatic decay in less than 0.05 seconds per Federal Test Standard 101C, Method 4046.1
- Standard surface resistivity of  $10^6$  -  $10^8$  ohms per square plus optional availability up to  $10^9$  ohms per square
- Permanence in static dissipation performance
- Humidity independent static charge control
- Advanced technology, uniform surface treatment
- Superior impact resistance
- Excellent optical properties
- Hard, abrasion resistant, durable surface
- Superior chemical resistance

#### Product Description:

**NOXTAT™ SD** sheets are surfaced with a transparent metal and plastic coating designed to permanently control static electricity. Noxtat™ SD is a hard coat finish on acrylic or polycarbonate that gives the sheet excellent mar and abrasion resistance.

**NOXTAT™ SDG** is excellent for use in clean room glazing panels, as well as equipment enclosures and desiccator cabinets.

**NOXTAT™ SDB** is excellent for use in fabricated parts. It is flexible enough to be thermally formed yet clear and hard for panel applications.

#### Applications:

**NOXTAT™** Acrylic and Polycarbonate is widely used in the semiconductor, electronic, micro-manufacturing industries and many general industrial applications.

- Covers • Guards • Access Panels • Window and doors for machines
- Electronic equipment and process instrumentation • Conveyor line covers
- Clean room windows and doors • Partitions and pass-thru modules
- Static control shields

#### Sizes:

Thickness: 10-90 mils, 1/8", 3/16", 1/4", 3/8", 1/2"

Sheet sizes: 48" x 96" (24" x 48" for thin films)

Other sizes/thickness available upon request

Normal P.T.V. thickness is 0.030 or 0.060 to fit framing requirements.

#### Colors:

Clear, Transparent Gray and Bronze. Other colors including tints which provide filtering of wave lengths that can interfere with processing operations are available by special order.



Acrylic Physical Properties (Typical but not guaranteed values for 0.25 in material)		
Property	Test Method	Acrylic
<b>Physical</b> Specific Gravity Pencil Hardness	ASTM D-792 ASTM D-792	1.19 3H Hardness Scale
<b>Mechanical</b> Tensile Strength Ultimate Elongation Tensile Modulus Flexural Strength Flexural Modulus Compressive Strength Izod Impact Strength (milled notch)	ASTM D-638 ASTM D-638 ASTM D-638 ASTM D-790 ASTM D-790 ASTM D-695 ASTM D-256	10,000 psi 4.5% 400,000 psi 16,500psi 475,000psi 18,000psi 0.4 ft-lb/inch of notch
<b>Thermal</b> Deflection Temperature (264psi load) Vicat Softening Point Maximum Continuous Service Temp. Coefficient of Thermal Expansion Coefficient of Thermal Conductivity	ASTM D-648 ASTM D-1525 ----- ASTM D-696 Cenco-Fitch	205 °F 239 °F 170 °F 4.0 x 10 <sup>5</sup> in.in. °F 1.3 BTU/hr*ft <sup>2</sup> *F/in
<b>Flammability</b> Horizontal Burn (Flame Spread) UL Rating	ASTM D-635 UL Classification	1.1 in/min 94 HB UL94
<b>Optical</b> 3mm Transparent Clear Transmittance-Total Haze	ATM D-1003 ATM D-1003	80% Less than 4.0%
<b>Electrical</b> Surface Resistivity Electrostatic Decay	ASTM D-257 FTS 101C.	10 <sup>6</sup> -10 <sup>8</sup> ohms/sq Less than 0.05 sec Method 4046.1*

\*Federal Test Standard 101C. Method 4046.1 as described in EIA-55541.Appendix F. Measurements of Electrostatic Decay Properties of Dissipative Planar Materials

Polycarbonate Physical Properties (Typical but not guaranteed values for 0.25 in material)		
Property	Test Method	Polycarbonate
<b>Physical</b> Specific Gravity Pencil Hardness	ASTM D-792 ASTM D-3363	1.20 B Hardness Scale
<b>Mechanical</b> Tensile Strength Ultimate Elongation Tensile Modulus Flexural Strength Flexural Modulus Compressive Strength Izod Impact Strength (milled notch)	ASTM D-638 ASTM D-638 ASTM D-638 ASTM D-790 ASTM D-790 ASTM D-695 ASTM D-256	9,500 psi 100% 345,000 psi 13,500psi 345,000psi 12,500psi 16 ft-lb/inch of notch
<b>Thermal</b> Deflection Temperature (264psi load) Vicat Softening Point Maximum Continuous Service Temp. Coefficient of Thermal Expansion Coefficient of Thermal Conductivity	ASTM D-648 ASTM D-1525 ----- ASTM D-696 C-177	270 °F 310 °F 170 °F 3.8 x 10 <sup>5</sup> in.in. °F 1.35 BTU/hr*ft <sup>2</sup> *F/in
<b>Flammability</b> Horizontal Burn (Flame Spread) UL Rating	ASTM D-635 UL Classification	Less than 1.0 in/min 94 V2 under 1/4 inch
<b>Optical</b> 3mm Transparent Clear Transmittance-Total Haze	ATM D-1003 ATM D-1003	74% 5.0%
<b>Electrical</b> Surface Resistivity Electrostatic Decay	ASTM D-257 FTS 101C.	10 <sup>6</sup> -10 <sup>8</sup> ohms/sq Less than 0.05 sec Method 4046.1*