

# BT-400 ESD Coating

## PRODUCT TYPE

BT-400 is translucent, blue ESD Coating that provides a flexible, conductive surface on polycarbonate, PET, and other substrates.

## PROPERTIES

- Surface Resistivity of  $10^4$  to  $10^5$  ohms/cm<sup>2</sup>
- Functions independent of Humidity
- High-gloss, mar-resistant finish
- Thermal Curing

## SAFETY AND EXPOSURE

All users must read and understand the Safety Data Sheet prior to using this product.



## LIQUID PROPERTIES at 25°C

PROPERTY	RANGE
Viscosity	10 - 20 centipoise (cP)
Specific Gravity	0.89 to 0.91
Solids, % by weight	0.4 – 0.7
pH	Slightly acidic
Compatible Solvents	1. 90% Isopropanol : 10% Water 2. 90% n-methyl-2-pyrrolidone (nMp) : 10% Water
Maximum Dilution	90% Coating : 10% Solvent

## CURED COATING CHARACTERISTICS

Polycarbonate substrate, 0.5 microns

PROPERTY	RANGE				
Light Transmittance	≥ 85% (polycarbonate); ≥ 90% (glass)				
Haze	< 2.0%				
Adhesion	100% (5B)				
Thickness, microns	0.2 – 0.8 (0.5)				
Chemical Resistance	<table border="0"> <tr> <td style="vertical-align: top;">Pass</td> <td>Alcohols (ethanol/isopropanol), Aliphatic (diesel/gasoline/heptane/cyclohexane), Dilute alkali</td> </tr> <tr> <td style="vertical-align: top;">Fail</td> <td>Esters (ethyl acetate), Ketones (acetone, 2-heptanone;2-butanone), Concentrated/Dilute acid &amp; alkali, Dichloromethane</td> </tr> </table>	Pass	Alcohols (ethanol/isopropanol), Aliphatic (diesel/gasoline/heptane/cyclohexane), Dilute alkali	Fail	Esters (ethyl acetate), Ketones (acetone, 2-heptanone;2-butanone), Concentrated/Dilute acid & alkali, Dichloromethane
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## WARRANTY LIMITATIONS

The physical and performance properties cited herein represent typical values for BT-400 ESD Coating, and are not meant as exact specifications. Customers must conduct their own validation testing to determine the appropriate use of this product for any purpose. This information is not to be considered a warranty or license to infringe upon any patented process or product; no liability for infringement arising out of such a use is assumed.

## DELIVERY OPTIONS

The BT-400 ESD Coating solution is available for shipment within two weeks of order confirmation, and is available in quart, gallon, five-gallon pail, and 55-gallon drum containers. Contact Exxene to select the best payment option and the optimum shipping method according to your preference and region. All charges, duties, and fees associated with the shipment and its contents are the responsibility of the customer.

## APPLICATION PARAMETERS

PROPERTY	RANGE
Application Method Dip Spray Flow Coat	2 – 3 mm /second withdrawal rate 15 – 30 psi HVLP; fine tip As appropriate to flow system
Environment Temperature/Humidity Dew point	16 – 27°C / 20 – 45 % RH Dew point must be at least 5° lower than room temperature.
Air quality	Laminar, top-down flow < 5 cfm Particle count as appropriate ( ≤ Class 10,000 )
Coating Temperature	Within 5° of Ambient temperature
Coating Filtration	Polyethylene or polypropylene; nominal media rated at 1.0 to 5.0 microns as a pre-filter; absolute media rated at 5.0 to 10.0 microns. <i>Filter before every use.</i>
Cure Conditions	40 – 90 minutes at 60°C 20 – 40 minutes at 120°C

## EQUIPMENT PREPARATION

**Compatible Materials:** All equipment surfaces must be constructed of stainless steel, polyethylene, polypropylene or similar, chemical resistance substances. Mild steel, brass, copper, and polyvinyl chloride (PVC) or plasticizer-containing materials cannot be allowed to contact the coating solution.

**Cleaning:** All coating equipment must be thoroughly cleaned with a compatible solvent to remove all traces of other coatings, solvents, or old batches of the same product. After all residues have been removed from the equipment, multiple rinses of water or a premixed solution of 90% Isopropanol and 10% water are used to prepare the system for the introduction of filtered BT-400 ESD Coating solution. Dried ESD Coating residue may be removed with n-methyl-2-pyrrolidone, or an aqueous 10 – 20% solution of sodium or potassium hydroxide.

**STORAGE** BT-400 solution is stored at room temperature, or at refrigerated temperatures above 5 °C. Do not freeze. When stored in the original, sealed container, the solution should be used within ten months.

**SUPPORT** Contact Us via telephone at +1(361) 991-8391, email [Info@Exxene.com](mailto:Info@Exxene.com), or fax to +1(361) 991-9057. We are located at 5939 Holly Road, Corpus Christi, TX 78414.