

# PureTherm® ESD 1500

PVC Film

Tekni-Films, a div of Tekni-Plex

## Message:

PureTherm® ESD 1500 is a high-clarity, static dissipative, rigid PVC based plastic sheet.

This thermoformable product for trays, lids and clamshell containers provides superior structural and electrostatic protection for sensitive electronic components.

PureTherm® ESD1500 meets or exceeds Military Specification MIL-B-81705-C, EIA-541, EOS/ESD 811.11 and Bellcore GR-1421-CORE requirements for surface resistivity and static decay at 12% relative humidity.

The proprietary PureTherm® ESD1500 process is non-humidity dependent and offers long-lasting shelf life.

| General Information               |                            |                   |             |
|-----------------------------------|----------------------------|-------------------|-------------|
| Features                          | Rigidity, high             |                   |             |
|                                   | Definition, high           |                   |             |
|                                   | Self-extinguishing         |                   |             |
| Uses                              | Thermoforming Applications |                   |             |
|                                   | Cover                      |                   |             |
|                                   | Container                  |                   |             |
| Agency Ratings                    | MIL B-81705C               |                   |             |
| Appearance                        | Available colors           |                   |             |
|                                   | Clear/transparent          |                   |             |
| Forms                             | Films                      |                   |             |
|                                   | Sheet                      |                   |             |
| Processing Method                 | Thermoforming              |                   |             |
| Physical                          | Nominal Value              | Unit              |             |
| Specific Gravity                  | 1.34                       | g/cm <sup>3</sup> |             |
| Films                             | Nominal Value              | Unit              | Test Method |
| Film Thickness <sup>1</sup>       | 127 - 1020                 | µm                |             |
| Heat Distortion                   | 75                         | °C                | ASTM D1637  |
| Cold shock                        | Medium to High             |                   |             |
| Static Decay <sup>2</sup>         |                            | sec               |             |
| Outgassing                        |                            |                   | ASTM E595   |
| CVCM                              | 0.020                      | %                 | ASTM E595   |
| TML                               | 0.80                       | %                 | ASTM E595   |
| WVR                               | 0.040                      | %                 | ASTM E595   |
| Roll Width <sup>3</sup>           |                            | cm                |             |
| Thermoforming Molding Temperature | 120 - 180                  | °C                |             |

|                               |                  |      |             |
|-------------------------------|------------------|------|-------------|
| Tensile Strength - MD (Yield) | 50.0             | MPa  | ASTM D882   |
| Free Shrinkage                | -4.0 - 4.0       | %    | ASTM D2732  |
| Electrical                    | Nominal Value    | Unit | Test Method |
| Surface Resistivity           | 1.0E+8 - 1.0E+10 | ohms | ESD S11.11  |
| Additional Information        | Nominal Value    | Unit | Test Method |

Contact Corrosion (FTSM 101-C method 3005) : No Corrosion Polycarbonate Compatibility (EIA 564) : Compatible at 48.9°C 12 Day Oven Aging (ASTM D-257) :  $10^8$  to  $10^{10}$  Ohms/sq

#### NOTE

1. Thickness tolerance:  $\pm 10\%$
2. EIA 541
3. Roll width tolerance:  $\pm 1.5$  mm

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