

FORMEX® EP PRODUCT DATA

FLAME RETARDANT POLYPROPYLENE SHEET

| | TEST METHOD | FORMEX™ EP-10 | FORMEX™ EP-17 | FORMEX™ EP-20 | FORMEX™ EP-30 | FORMEX™ EP-40 | FORMEX™ EP-62 |
|--|--|------------------------|-----------------------|-----------------------|-----------------------|------------------------|------------------------|
| Color | | Natural & Black | Natural & Black | Natural & Black | Natural & Black | Natural & Black | Natural & Black |
| MANUFACTURING SPECIFICATION | | | | | | | |
| Thickness | | | | | | | |
| inch | | 0.010 (+0.003/-0.0015) | 0.017 (+0.003/-0.001) | 0.020 (+0.002/-0.002) | 0.030 (+0.002/-0.002) | 0.040 (+0.003/-0.003) | 0.062 (+0.004/-0.004) |
| millimeter | | 0.25 (+0.08/-0.04) | 0.43 (+0.08/-0.03) | 0.50 (+0.05/-0.05) | 0.76 (+0.05/-0.05) | 1.0 (+0.08/-0.08) | 1.57 (+0.10/-0.10) |
| UL FLAMMABILITY RATING / PERFORMANCE LEVELS | | | | | | | |
| Flammability | UL 94 | VTM-0 | V-0 | V-0 | V-0 | V-0 | V-0 |
| Relative Temperature Index | UL 746B | | | | | | |
| Electrical | | 90°C/ 194°F | 90°C/ 194°F | 90°C/ 194°F | 90°C/ 194°F | 90°C/ 194°F | 90°C/ 194°F |
| Mechanical Without Impact | | 90°C/ 194°F | 90°C/ 194°F | 90°C/ 194°F | 90°C/ 194°F | 90°C/ 194°F | 90°C/ 194°F |
| High Current Arc Ignition - PLC | UL 746A | 3 | 2 | 2 | 2 | 1 | 1 |
| High Voltage Arc Tracking - PLC | UL 746A | 0 | 0 | 0 | 0 | 0 | 0 |
| Hot Wire Ignition - PLC | UL 746A | 4 | 4 | 4 | 4 | 3 | 3 |
| Comparative Tracking Index - PLC | ASTM D-3638 | 0 | 0 | 0 | 0 | 0 | 0 |
| TYPICAL MECHANICAL PROPERTIES VALUES | | | | | | | |
| Tensile Yield - psi | ASTM D-882 / ISO 527-1,-2 | | | | | | |
| Machine Direction | | 3700 | 3700 | 3700 | 3700 | 3700 | 3700 |
| Transverse Direction | | 3200 | 3200 | 3400 | 3400 | 3400 | 3400 |
| TYPICAL PHYSICAL PROPERTIES VALUES | | | | | | | |
| Density - gm/cc | ASTM D-792 / ISO 1183-1, Method A | 0.972 | 0.972 | 0.972 | 0.972 | 0.972 | 0.972 |
| Oxygen Index - % | ASTM D-2863 / ISO 4589-1,-2 | 28 | 28 | 28 | 28 | 28 | 28 |
| Water Absorption - % Change in weight | ASTM D-570 / ISO 62, Method 4 | 0.06% | 0.06% | 0.06% | 0.06% | 0.06% | 0.06% |
| Heat Deflection Temperature at 66 psi | ASTM D-648 0.45MPa / ISO 75-1,-2, Method B | 106°C/ 223°F | 106°C/ 223°F | 106°C/ 223°F | 106°C/ 223°F | 106°C/ 223°F | 106°C/ 223°F |
| Surface Energy - dynes/cm (as produced) | ASTM D-2578 | ≥ 50 | ≥ 50 | ≥ 50 | ≥ 50 | ≥ 50 | ≥ 50 |
| TYPICAL ELECTRICAL PROPERTIES VALUES | | | | | | | |
| Comparative Tracking Index - volts | IEC 60112 | 600 | 600 | 600 | 600 | 600 | 600 |
| Dielectric Breakdown - volts | ASTM D-149 / IEC 60243-1 | 16,512 | 20,570 | 22,440 | 25,310 | 29,350 | 33,380 |
| Dielectric Strength - volts/mil | ASTM D-149 / IEC 60243-1 | 1,651 | 1,210 | 1,122 | 844 | 734 | 538 |
| Volume Resistivity - ohm-cm | ASTM D-257 / IEC 62631-3-1 | 3 x 10 ¹⁵ | 3 x 10 ¹⁵ | 3 x 10 ¹⁵ | 3 x 10 ¹⁵ | 3 x 10 ¹⁵ | 3 x 10 ¹⁵ |
| Dielectric Constant | ASTM D-150 / IEC 60250, 1MHz | 2.30 | 2.30 | 2.30 | 2.30 | 2.30 | 2.30 |
| Dissipation Factor | ASTM D-150 / IEC 60250, 1MHz | 0.0017 | 0.0017 | 0.0017 | 0.0017 | 0.0017 | 0.0017 |
| PACKAGING INFORMATION | | | | | | | |
| Standard Configuration | | Roll | Roll | Roll | Roll | Sheet | Sheet |
| Core ID - inches (millimeters) | | 6 (152) | 6 (152) | 6 (152) | 6 (152) | - | - |
| Roll OD - inches (millimeters) (approximate) | | 18 (457) | 18 (457) | 18 (457) | 18 (457) | - | - |
| Roll Width - inches (millimeters) | | 24 (610) | 24 (610) | 24 (610) | 24 (610) | - | - |
| Roll Weight - lbs (kgs) (approximate) | | 192 (87) | 172 (78) | 200 (91) | 180 (82) | - | - |
| Length/Roll - feet (meters) | | 2000 (609.6) | 1000 (304.8) | 1000 (304.8) | 600 (182.9) | - | - |
| Area/Roll - square feet (square meters) | | 4000 (371.6) | 2000 (185.8) | 2000 (185.8) | 1200 (111.5) | - | - |
| Sheet Sizes - inches (millimeters) | | - | - | - | - | 24 x 48 (610 x 1219) | 24 x 48 (610 x 1219) |

Notice: The above data is believed to be accurate and reliable. ITW assumes no responsibility for end-use application, and no performance warranty is expressed or implied.

