

## Material Information Sheet

**Material Description:** Safe T Mark

Specifications		
<b>Material:</b>	Film-stamped Flame Retardant Modified ABS	
<b>Finish:</b>	Matte / Non-glare	
<b>Sheet Size:</b>	24"x 49" (610 x 1245mm)	
<b>Thickness: 2-Ply and 3-Ply</b>	1/16" (1.6mm) 1/8" (3.2mm)	
<b>Usage:</b>	Fabrication –friendly alternative to traditional phenolic materials for interior applications including electrical tags and control panels.	
<b>Engraving Method:</b>	Rotating carbide	
<b>Cutting Depth:</b>	.003" (.08mm)	
Physical Properties	Typical Values	ASTM Method
<b><u>IZOD Impact Strength</u></b>		
<b>Notched at 73°F (22.78°C)</b>	1.10ft lbs/in	D-256
<b><u>Tensile Strength</u></b>		
<b>To break</b>	5,500 psi	D-638
<b>Elongation before break</b>	50%	D-638
<b><u>Flexural Strength</u></b>		
<b>Loan to stretch outer surface 5%</b>	10,300 psi	D-790
<b><u>Electrical – Arc Resistance</u></b>	10 <sup>12</sup> Ohms/Sq. Meter	D-495
<b><u>Rockwell Hardness</u></b>	M45	D-785
<b><u>Specific Gravity</u></b>	1.15	D-792
<b><u>Deflection Temperature</u></b>		
<b>Temperature at which material deflects .010" (.254mm) at 264 psi</b>	175°F (79.44°C)	D-648
<b><u>Coefficient of Thermal Expansion</u></b>		
<b>Inch/inch/°F</b>	5.6 x 10 <sup>-5</sup>	D-696
<b><u>Vicat Softening Point</u></b>		
<b>Temperature for needle to penetrate 1mm (90°F/hr, 2.2 lbs)</b>	208°F (97.78°C)	D-1525
<p><b>Safe T Mark</b> material softens sufficiently at about 180°F (82.22°C), which enables bending, should that be desired. It can also be drilled, sawed, sheared, and bonded to itself or other materials.</p> <p>Electrically non-conductive, Insulative, Fire retardant, Non-flammable. Meets 10<sup>12</sup> Ohms/square meter or higher in electrical resistivity, RoHS compliant (halogen-free), PVC-free, Formaldehyde and Phenol free and UL 94 V0. Material was judged as not contributing to the combustion of the base material.</p>		
<p><b>Restriction of Hazardous Substances (RoHS)/ U.L. Certification/Halogenated Materials</b> Rowmark has investigated the Restriction of Hazardous Substances (RoHS 3) directive issued by the European Union (directive 2015/863/EU), through our on-line research. This RoHS directive prohibits the distribution of products after June 2015, which contain the following materials; lead, mercury, cadmium, hexavalent chromium, poly-brominated biphenyls and poly-brominated diphenyl ethers. The directive appears to apply to all products that operate on electrical power and contain electronic components. Rowmark complies with the use and disclosure of all halogenated materials and does not incorporate poly-brominated biphenyls or poly-brominated diphenyl ethers in any of its products. Based on our audit, Rowmark plastic sheet products are in compliance with this directive and do not contain any of the elements noted above or in the candidate list in accordance with the referenced directive. Our related MSDS documents may be found in the Rowmark website (<a href="http://www.rowmark.com/MARK/MSDS.asp">http://www.rowmark.com/MARK/MSDS.asp</a>) and can be referenced for further information.</p>		
<p><i>Note: The above information is given in good faith, but no warranty, express or implied, is given.</i></p>		