

## Material Information Sheet

**Material Description:** Reverse Lasermark®

Specifications	
<b>Material:</b>	Micro-surfaced Impact Modified Acrylic for Reverse Engraving
<b>Finish:</b>	Matte   Gloss
<b>Sheet Size:</b>	24"x 48 3/4" (610 x 1238 mm)
<b>Thickness: 2-Ply</b>	1/16" (1.6mm) 1/8" (3.2mm)
<b>Usage:</b>	Interior, Exterior Signage   Personal Identification   Legend Plates
<b>Engraving Method:</b>	Laser   Rotating carbide

Physical Properties	Typical Values	ASTM Method
<b><u>IZOD Impact Strength</u></b>		
Notched at 73°F (22.78°C)	1.10ft lbs/in	D-256
<b><u>Tensile Strength</u></b>		
To break	5,500 psi	D-638
Elongation before break	50%	D-638
<b><u>Flexural Strength</u></b>		
Load to stretch outer surface 5%	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>		
Temperature at which material deflects .010" (.254mm) at 264 psi	180°F (79.44°C)	D-648
<b><u>Coefficient of Thermal Expansion</u></b>		
Inch/inch/°F	5.6 x 10 <sup>-5</sup>	D-696
<b><u>Vicat Softening Point</u></b>		
Temperature for needle to penetrate 1mm (90°F/hr, 2.2 lbs)	208°F (97.78°C)	D-1525

Reverse Lasermark® material softens sufficiently at approx. 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. Rowmark uses UV stable plastic resins and films in the manufacture of its products to prolong the useful life of the material when used in reasonable exterior conditions as such, Rowmark products will remain colorfast for 2+ years.

Electrically non-conductive, Insulative. Meets 10<sup>12</sup> Ohms/square meter or higher in electrical resistivity, RoHS compliant (halogen-free), PVC-free, Formaldehyde and Phenol free and rated UL 94 HB. Material was judged as not contributing to the combustion of the base material.

**Restriction of Hazardous Substances (RoHS)/ U.L. Certification/Halogenated Materials** 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 (<http://www.rowmark.com/MARK/MSDS.asp>) and can be referenced for further information.

### Terms & Condition of Sale

Rowmark warranty is limited to replacement of product only, and such warranty does not extend to the costs of any repeat labor or incidental costs. **LIMITED WARRANTY, WARRANTY DISCLAIMERS AND LIMITATIONS OF REMEDIES AND LIABILITIES:** Except as set forth above, Seller makes **NO OTHER WARRANTIES** concerning the products whatsoever.

*Note: The above information is given in good faith, but no warranty, express or implied, is given.*