

# Mattes

Physical Properties	Typical Values	ASTM Method
<b><u>IZOD Impact Strength</u></b>		
Notched at 73°F (22.78°C)	2.5 ft lbs/in	D-256
<b><u>Tensile Strength</u></b>		
To break	5,400 psi	D-638
Elongation before break	70%	D-638
<b><u>Flexural Strength</u></b>		
Loam to stretch outer surface 5%	9,200 psi	D-790
<b><u>Specific Gravity</u></b>	1.04	D-792
<b><u>Rockwell Hardness</u></b>	R102	D-785
<b><u>Deflection Temperature</u></b>		
Temperature at which material deflects .010" (.254mm) at 264 psi	175°F (79.44°C)	D-648
<b><u>Coefficient of Thermal Expansion</u></b>		
Inch/inch/°F	5.0 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)	225°F (107.22°C)	D-1525

The physical properties of the **MATTES** engraving material are largely controlled by the base material. This material was chosen to provide a good balance of properties for this product to satisfy a wide range of uses.

The material softens at about 200°F (93.00°C) sufficiently so that it can be bent where needed. It can be drilled, sawed, sheared, nailed, bonded and die-cut.

The base material, as well as the foils, were tested for flammability by Underwriters Laboratories. The base material is rated as 94 HB on the UL 94 test. The foil was judged as not contributing to combustion of the base.

Most of the colors will exhibit slight fading under prolonged exposure to direct sunlight. There are, however, those which tend to fade more severely. This material is designed for use where no direct extreme exposure is encountered.

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