

#### **Physical Properties**

## Satins Physical Properties

# Satins™

| Physical Properties  | Typical<br>Values      | ASTM<br>Method |
|--|------------------------|----------------|
| IZOD Impact Strength   |                        |                |
| Notched at 73°F (22.78°C)  | 2 ft lbs/in            | D-256          |
| Notched at 32°F (0°C)  | 1.6 ft lbs/in          | D-256          |
| Unnotched at 73°F (22.76°C)                                      | 24 ft lbs/in           | D-256          |
| <u>Tensile Strength</u>  |                        |                |
| To break   | 7,000 psi              | D-638          |
| Elongation before break  | 28%                    | D-638          |
| Flexural Strength  |                        |                |
| Load to stretch outer surface 5%                                 | 11,000 psi             | D-790          |
| <b>Specific Gravity</b>  | 1.11                   | D-792          |
| Rockwell Hardness  | R114                   | D-785          |
| <u>Deflection Temperature</u>                                    |                        |                |
| Temperature at which material deflects .010" (.254mm) at 264 psi | 186°F<br>(85.55°C)     | D-648          |
| <b>Coefficient of Thermal Expansion</b>                          |                        |                |
| Inch/inch/°F   | 5.0 x 10 <sup>-5</sup> | D-696          |
| Vicat Softening Point  |                        |                |
| Temperature for needle to penetrate 1mm (90°F/hr, 2.2 lbs)       | 217°F<br>(102.78°C)    | D-1525         |

The plastic material used in the manufacture of the **SATINS** was specifically selected and formulated to achieve the best balance of properties needed for the engraving industry.

The material softens sufficiently at about 200°F, which enables bending, should that be desired. It can also be drilled, sawed, sheared, nailed and bonded to itself or other materials.



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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.

The base and cap material were tested for flammability by Underwriters Laboratories. They are rated at 94HB on the UL 94 test.

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