



[www.erpeiamc.com](http://www.erpeiamc.com)

## Abrasion Resistant Acrylic Properties

| Physical Properties                    | ASTM Test Method   | Units                           | Values         |
|--|--------------------|---------------------------------|----------------|
| Specific Gravity                       | D-792              | g/cm <sup>3</sup>               | 1.19           |
| Water Absorption                       | D-570              | % by wt                         | 0.20           |
| Optical Properties                     | ASTM Test Method   | Units                           | Values         |
| Optical Refractive Index               | D-542              |                                 | 1.49           |
| Light Transmission-Total               | D-1003             | %                               | 92             |
| Mechanical Properties                  | ASTM Test Method   | Units                           | Values         |
| Pencil Harness                         | D-3363             |                                 | 4H             |
| Tensile Strength - Max.                | D-638              | psi                             | 10,000         |
| Tensile Modulus of Elasticity          | D-638              | psi                             | 400,000        |
| Flexural Strength - Max.               | D-790              | psi                             | 16,500         |
| Flexural Modulus of Elasticity         | D-790              | psi                             | 475,000        |
| Rockwell Hardness                      | D-785              |                                 | M-100          |
| Thermal Properties                     | ASTM Test Method   | Units                           | Values         |
| Maximum Recommended Continuous Service |                    | °F                              | 170-190        |
| Softening Point                        |                    | °F                              | 210-220        |
| Melting Temperature                    |                    | °F                              | 300-315        |
| Thermal Conductivity                   | C-177              | BTU-ft/(hr-ft <sup>2</sup> -°F) | 1.3            |
| Flammability (Burning Rate)            | D-635              | In/minute                       | 1.019          |
| Abrasion Resistance of the Coating     |                    |                                 | Change in Haze |
| Rotary Brass Wool (25 cycles)          | Proprietary method |                                 | < 1%           |
| Taber Abrasion (100 cycles)            | D 1044             |                                 | < 2%           |
| Falling Sand (3,000 grams)             | DIN 52 348         |                                 | < 10%          |

These suggestions and data are based on information we believe to be reliable. They are offered in good faith, but without guarantee, as conditions and methods of use are beyond our control. We recommend that the prospective user determine the suitability of our materials and suggestions before adopting them on a commercial scale.