



PolyStone Products Technical Information

Origination Date: August 1996

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| AS9100 | UNCONTROLLED WHEN PRINTED | Page 1 of 3 |
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PERFORMANCE PROPERTIES OF POLYSTONE

| Property | Typical Result | Test |
|--------------------------------|----------------------------------------------------------------------------|-----------------------------------------------|
| Tensile Strength | 6,000 psi | ASTM D 638 |
| Tensile Modulus | 1.5 x 10 ⁶ psi | ASTM D 638 |
| Tensile Elongation | 0.4% min. | ASTM D 638 |
| Flexural Strength | 10,000 psi | ASTM D 790 |
| Flexural Modulus | 1.2 x 10 ⁶ psi | ASTM D 790 |
| Hardness | >85 | Rockwell "M" Scale |
| | 56 | ASTM D 785 Barcol Impressor ASTM D 2583 |
| Thermal Expansion | 3.02 x 10 ⁻⁵ in./in./°C (1.80 x 10 ⁻⁵ in./in./°F) | ASTM D 696 |
| Gloss (60° Gardner) | 5–75 (matte—highly polished) | ANSI Z124 |
| Light Resistance (Xenon Arc) | No effect | NEMA LD 3-2000 Method 3.3 |
| Wear and Cleanability | Passes | ANSI Z124.3 & Z124.6 |
| Stain Resistance | Passes | ANSI Z124.3 & Z124.6 |
| Fungus and Bacteria Resistance | Does not support microbial growth | ASTM G 21 & G 22 |
| Boiling Water Resistance | No visible change | NEMA LD 3-2000 Method 3.5 |
| High Temperature Resistance | No change | NEMA LD 3-2000 Method 3.6 |
| Izod Impact (Notched Specimen) | 0.28 ft.-lbs./in. of notch | ASTM D 256 (Method A) |
| Ball Impact Resistance | No fracture—1/2 lb. ball | NEMA LD 3-2000 Method 3.8 |
| Weatherability | ΔE* ₉₄ <5 in 1,000 hrs. | ASTM G 155 |
| Water Absorption | Long-term 0.8% (1/4") | ASTM D 570 |
| Flammability | Per Title 14 CFR/JAR/CS Part 25 Appendix F | |
| Heat Release | Pass – OSU 65/65 | Part IV (g) [Amdt. 25-66] |
| Smoke Density | Pass | Part V (b) [Amdt. 25-66] |
| Toxicity | Pass | Part V (b) [Amdt. 25-66] |
| Sixty Sec. Vertical | Pass | F.A.R. 25.853 (a) |
| Density | 1.75 – 1.80 g/cm ³ | By Weight @ .06"x12"x12" |
| Color Stability | No Change | ASTM G53/UVA 1000hrs |
| Abrasion Resistance | 0.15 | ASTM D 4060 |

REVISION LOG

| Revision | Date | Changes |
|----------|------------|--------------------------------------------------------|
| 001 | 02/02/2000 | Initial document |
| 002 | 03/16/2007 | Addition of Xenon Arc testing |
| 003 | 09/06/2007 | Review and update of the entire document |
| 004 | 05/07/2014 | Addition of ASTM D 696 |
| 005 | 06/14/2015 | Update <i>Products Technical</i> to align with AS9100c |
| 006 | 08/08/2022 | Technical review and updating |
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