

PLASKOLITE

DURAPLEX Impact Modified Acrylic Sheet

Typical Properties

| Physical | TEST METHOD | UNITS | DURAPLEX 30% | DURAPLEX 70% | DURAPLEX OPTIX SG05 (50%) | DURAPLEX OPTIX SG10 (100%) |
|-----------------------------------|-------------|---------|--------------|--------------|---------------------------|----------------------------|
| Specific Gravity/Relative Density | ASTM D792 | | 1.18 | 1.16 | 1.17 | 1.15 |
| Light Transmission -Total | ASTM D1003 | % | 92 | 90 | 92 | 90 |
| Light Transmission - Haze | ASTM D1003 | % | 2 | >3 | 2 | >3 |
| Water Absorption | ASTM D570 | % | 0.3 | 0.3 | 0.3 | 0.3 |
| Mold Shrinkage | ASTM D955 | mils/in | 3-6 | 3-6 | 3-6 | 3-6 |

| Mechanical | TEST METHOD | UNITS | DURAPLEX 30% | DURAPLEX 70% | DURAPLEX OPTIX SG05 (50%) | DURAPLEX OPTIX SG10 (100%) |
|-------------------------------------|-------------|----------------|--------------|--------------|---------------------------|----------------------------|
| Tensile Strength | ASTM D638 | psi | 9,000 | 7,100 | 8,000 | 5,600 |
| Tensile Modulus of Elasticity | ASTM D638 | psi | 376,000 | 304,000 | 340,000 | 250,000 |
| Flexural Strength | ASTM D790 | psi | 13,690 | 10,610 | 12,000 | 8,300 |
| Izod Impact Strength – Molded Notch | ASTM D256 | ft-lb/in Notch | 0.6 | 0.9 | 0.7 | 1.1 |
| Ball Drop Impact | | | Pass | Pass | Pass | Pass |
| Rockwell Hardness | ASTM D785 | | M-78 | M-59 | M-68 | M-46 |

| Thermal | TEST METHOD | UNITS | DURAPLEX 30% | DURAPLEX 70% | DURAPLEX OPTIX SG05 (50%) | DURAPLEX OPTIX SG10 (100%) |
|--|-------------|-----------|----------------------|----------------------|---------------------------|----------------------------|
| Deflection Temperature @ 264 psi (1.8 MPa) | ASTM D648 | °F | 198 | 190 | 194 | 185 |
| Coefficient of Thermal Expansion | ASTM D696 | in/in/°F | 3.5x10 ⁻⁵ | 4.5x10 ⁻⁵ | 4x10 ⁻⁵ | 5x10 ⁻⁵ |
| Flammability (Burning Rate) | ASTM D635 | in/minute | 0.85 | 1.53 | 1.25 | 1.97 |
| Flammability | UL 94 | | HB | HB | HB | HB |
| Smoke Density Rating | ASTM D2843 | % | 5.2 | 11.5 | 8.5 | 16.5 |
| Self-Ignition Temperature | ASTM D1929 | °F | >850 | >850 | >850 | >850 |

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.

Questions? Please contact Plaskolite Customer Support 800-848-9124

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