## PLASKOLITE

### **OPTIX Colored Acrylic Sheet**

#### **Typical Properties**

Physical	TEST METHOD	UNITS	OPTIX Colored Acrylic
Specific Gravity/Relative Density	ASTM D792		1.19
Optical Refractive Index	ASTM D542		1.49
Sound Transmission	ASTM E90 / E413	dB	27
Water Absorption	ASTM D570	%	0.4
Mold Shrinkage	ASTM D955	mils/in	2-6
Mechanical	TEST METHOD	UNITS	OPTIX Colored Acrylic
Tensile Strength	ASTM D638	psi	11,030
Tensile Elongation – Max.	ASTM D638	%	5.8
Tensile Modulus of Elasticity	ASTM D638	psi	490,000
Flexural Strength	ASTM D790	psi	17,000
Flexural Modulus of Elasticity	ASTM D790	psi	490,000
Izod Impact Strength – Molded Notch	ASTM D256	ft-lb/in Notch	0.4
Izod Impact Strength – Milled Notch	ASTM D256	ft-lb/in Notch	0.28
Tensile Impact Strength	ASTM D1822	ft-lb/in <sup>2</sup>	20
Abrasion Resistance - Change in Haze - 0 cycles	ASTM D1044	Haze, %	0
Abrasion Resistance - Change in Haze - 10 cycles	ASTM D1044	Haze, %	11.2
Abrasion Resistance - Change in Haze - 50 cycles	ASTM D1044	Haze, %	24
Abrasion Resistance - Change in Haze - 200 cycles	ASTM D1044	Haze, %	24.9
Rockwell Hardness	ASTM D785	,	M-95
Thermal	TEST METHOD	UNITS	OPTIX Colored Acrylic
Maximum Recommended Continuous Service		° <b>-</b>	
Temperature		°F	170-190
Softening Temperature		°F	210-220
Melting Temperature		°F	300-315
Deflection Temperature @ 264 psi (1.8 MPa)	ASTM D648	°F	
Deflection Temperature @ 66 psi (0.45 MPa)	7101111 0040	'F	203
	ASTM D648	°F	203 207
Coefficient of Thermal Expansion			
Coefficient of Thermal Expansion	ASTM D648 ASTM D696	°F in/in/°F	207 3.0x10 <sup>-5</sup>
Coefficient of Thermal Expansion Thermal Conductivity	ASTM D648 ASTM D696 ASTM C177	°F in/in/°F BTU-ft/ft <sup>2</sup> /hr/°F	207 3.0x10 <sup>-5</sup> 0.075
Coefficient of Thermal Expansion Thermal Conductivity Flammability (Burning Rate)	ASTM D648 ASTM D696 ASTM C177 ASTM D635	°F in/in/°F	207 3.0x10 <sup>-5</sup> 0.075 1.019
Coefficient of Thermal Expansion Thermal Conductivity Flammability (Burning Rate) Flammability	ASTM D648 ASTM D696 ASTM C177 ASTM D635 UL 94	°F in/in/°F BTU-ft/ft <sup>2</sup> /hr/°F in/minute	207 3.0x10 <sup>-5</sup> 0.075 1.019 HB
Coefficient of Thermal Expansion Thermal Conductivity Flammability (Burning Rate) Flammability Smoke Density Rating	ASTM D648           ASTM D696           ASTM C177           ASTM D635           UL 94           ASTM D2843	°F in/in/°F BTU-ft/ft <sup>2</sup> /hr/°F in/minute %	207 3.0x10 <sup>-5</sup> 0.075 1.019 HB 3.4
Coefficient of Thermal Expansion Thermal Conductivity Flammability (Burning Rate) Flammability Smoke Density Rating Self-Ignition Temperature	ASTM D648 ASTM D696 ASTM C177 ASTM D635 UL 94 ASTM D2843 ASTM D1929	°F in/in/°F BTU-ft/ft <sup>2</sup> /hr/°F in/minute	207 3.0x10 <sup>-5</sup> 0.075 1.019 HB 3.4 833
Coefficient of Thermal Expansion Thermal Conductivity Flammability (Burning Rate) Flammability Smoke Density Rating Self-Ignition Temperature Flame Spread Index	ASTM D648           ASTM D696           ASTM C177           ASTM D635           UL 94           ASTM D2843           ASTM D1929           ASTM E84	°F in/in/°F BTU-ft/ft <sup>2</sup> /hr/°F in/minute %	207 3.0x10 <sup>-5</sup> 0.075 1.019 HB 3.4 833 115
Coefficient of Thermal Expansion Thermal Conductivity Flammability (Burning Rate) Flammability Smoke Density Rating Self-Ignition Temperature	ASTM D648 ASTM D696 ASTM C177 ASTM D635 UL 94 ASTM D2843 ASTM D1929	°F in/in/°F BTU-ft/ft <sup>2</sup> /hr/°F in/minute %	207 3.0x10 <sup>-5</sup> 0.075 1.019 HB 3.4 833
Coefficient of Thermal Expansion Thermal Conductivity Flammability (Burning Rate) Flammability Smoke Density Rating Self-Ignition Temperature Flame Spread Index Smoke Developed Index	ASTM D648         ASTM D696         ASTM C177         ASTM D635         UL 94         ASTM D2843         ASTM D1929         ASTM E84         ASTM E84	°F in/in/°F BTU-ft/ft <sup>2</sup> /hr/°F in/minute % °F	207 3.0x10 <sup>-5</sup> 0.075 1.019 HB 3.4 833 115 550
Coefficient of Thermal Expansion Thermal Conductivity Flammability (Burning Rate) Flammability Smoke Density Rating Self-Ignition Temperature Flame Spread Index Smoke Developed Index Smoke Developed Index Chemical Resistance to Stress - Critical Crazing Stress to:	ASTM D648 ASTM D696 ASTM C177 ASTM D635 UL 94 ASTM D2843 ASTM D1929 ASTM E84 ASTM E84 <b>TEST METHOD</b> ARTC Modification of	°F in/in/°F BTU-ft/ft <sup>2</sup> /hr/°F in/minute %	207 3.0x10 <sup>-5</sup> 0.075 1.019 HB 3.4 833 115
Coefficient of Thermal Expansion Thermal Conductivity Flammability (Burning Rate) Flammability Smoke Density Rating Self-Ignition Temperature Flame Spread Index Smoke Developed Index <b>Chemical</b> Resistance to Stress - Critical Crazing Stress to: Isopropyl Alcohol Resistance to Stress - Critical Crazing Stress to:	ASTM D648         ASTM D696         ASTM C177         ASTM D635         UL 94         ASTM D2843         ASTM D1929         ASTM E84         ASTM E84         TEST METHOD	°F in/in/°F BTU-ft/ft <sup>2</sup> /hr/°F in/minute % °F UNITS	207 3.0x10 <sup>-5</sup> 0.075 1.019 HB 3.4 833 115 550 OPTIX Colored Acrylic
Coefficient of Thermal Expansion Thermal Conductivity Flammability (Burning Rate) Flammability Smoke Density Rating Self-Ignition Temperature Flame Spread Index Smoke Developed Index <b>Chemical</b> Resistance to Stress - Critical Crazing Stress to: Isopropyl Alcohol	ASTM D648 ASTM D696 ASTM C177 ASTM D635 UL 94 ASTM D2843 ASTM D1929 ASTM E84 ASTM E84 <b>TEST METHOD</b> ARTC Modification of MIL-P6997 ARTC Modification of	°F in/in/°F BTU-ft/ft <sup>2</sup> /hr/°F in/minute % °F UNITS psi	207 3.0x10 <sup>-5</sup> 0.075 1.019 HB 3.4 833 115 550 OPTIX Colored Acrylic 900

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.

ARTC Modification of

MIL-P6997

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

Resistance to Stress - Critical Crazing Stress to:

Solvesso 100

# PLASKOLITE

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