

# PLASKOLITE

## OPTIX Thick Gauge Acrylic

Thermal	TEST METHOD	UNITS	OPTIX
Smoke Density Rating	ASTM D-2843	%	3.4
Flammability	UL 94		HB
Thermal Conductivity	ASTM C-177	BTU-ft/(hr-ft <sup>2</sup> -°F)	0.075
Flame Spread Index	ASTM E-84		115
Melting Temperature		°F	300-315
Flammability (Burning Rate)	ASTM D-635	ln/minute	1.019
Deflection Temperature @ 66 psi (0.45 MPa)	ASTM D-648	°F	207
Smoke Developed Index	ASTM E-84		550
Deflection Temperature @ 264 psi (1.8 MPa)	ASTM D-648	°F	203
Self-Ignition Temperature	ASTM D-1929	°F	833
Coefficient of Thermal Expansion	ASTM D-696	in/(in-°F) x 10 <sup>-5</sup>	3.0
Softening Temperature		°F	210-220
Melt Flow Rate	ASTM D-1238	g/10 min.	1.5
Maximum Recommended Continuous Service Temperature		°F	170-190

Mechanical	TEST METHOD	UNITS	OPTIX
Flexural Modulus of Elasticity	ASTM D-790	psi	490,000
Abrasion Resistance - Change in Haze - 50 cycles	ASTM D-1044	Haze, %	24
Abrasion Resistance - Change in Haze - 200 cycles	ASTM D-1044	Haze, %	24.9
Tensile Impact Strength	ASTM D-1822	ft-lb/in <sup>2</sup>	20
Abrasion Resistance - Change in Haze - 10 cycles	ASTM D-1044	Haze, %	11.2
Izod Impact Strength – Milled Notch	ASTM D-256	ft-lb/in Notch	0.28
Tensile Modulus of Elasticity	--	psi	490,000
Rockwell Hardness	ASTM D-785		M-95
Abrasion Resistance - Change in Haze - 0 cycles	ASTM D-1044	Haze, %	0
Izod Impact Strength – Molded Notch	ASTM D-256	ft-lb/in Notch	0.4
Flexural Strength	ASTM D-790	psi	17,000
Tensile Strength	ASTM D-638	psi	11,030
Tensile Elongation – Max.	ASTM D-638	%	5.8

Chemical	TEST METHOD	UNITS	OPTIX
Resistance to Stress - Critical Craze Stress to: Lacquer Thinner	ARTC Modification of MIL-P6997	psi	500
Resistance to Stress - Critical Craze Stress to: Toluene	ARTC Modification of MIL-P6997	psi	1,300
Resistance to Stress - Critical Craze Stress to: Isopropyl Alcohol	ARTC Modification of MIL-P6997	psi	900
Resistance to Stress - Critical Craze Stress to: Solvesso 100	ARTC Modification of MIL-P6997	psi	1,600

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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Physical	TEST METHOD	UNITS	OPTIX
Water Absorption	ASTM D-570	% By wt	0.4
Mold Shrinkage	ASTM D-955	mils/in	2-6
Optical Refractive Index	ASTM D-542		1.49
Sound Transmission	ASTM E90 / E413	db	27
Specific Gravity/Relative Density	ASTM D-792		1.19
Light Transmission - Total	ASTM D-1003	%	92
Light Transmission - Haze	ASTM D-1003	%	2

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