

# PLASKOLITE

## OPTIX 95 Acrylic

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

Thermal	TEST METHOD	UNITS	OPTIX 95
Flammability (Burning Rate)	ASTM D-635	In/minute	1.019
Melting Temperature		°F	300-315
Coefficient of Thermal Expansion	ASTM D-696	in/(in-°F) x 10 <sup>-5</sup>	3.0
Self-Ignition Temperature	ASTM D-1929	°F	833
Smoke Density Rating	ASTM D-2843	%	3.4
Smoke Developed Index	ASTM E-84		550
Thermal Conductivity	ASTM C-177	BTU-ft/(hr-ft <sup>2</sup> -°F)	0.075
Deflection Temperature @ 264 psi (1.8 MPa)	ASTM D-648	°F	203
Deflection Temperature @ 66 psi (0.45 MPa)	ASTM D-648	°F	207
Flame Spread Index	ASTM E-84		115
Softening Temperature		°F	210-220
Maximum Recommended Continuous Service Temperature		°F	170-190

Physical	TEST METHOD	UNITS	OPTIX 95
Optical Refractive Index	ASTM D-542		1.49
Specific Gravity/Relative Density	ASTM D-792		1.19
Light Transmission -Total	ASTM D-1003	%	>91
Sound Transmission	ASTM E90 / E413	db	27
Water Absorption	ASTM D-570	% By wt	0.4

Chemical	TEST METHOD	UNITS	OPTIX 95
Resistance to Stress - Critical Craze Stress to: Lacquer Thinner	ARTC Modification of MIL-P6997	psi	500
Resistance to Stress - Critical Craze Stress to: Solvesso 100	ARTC Modification of MIL-P6997	psi	1,600
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

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