

PLASKOLITE

OPTIX DA - Digital Acrylic

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

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

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

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

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