

PLASKOLITE

DURAPLEX Impact Modified Acrylic Properties

Physical	Test method	Units	DURAPLEX 30%	DURAPLEX OPTIX SG05 (50%)	DURAPLEX 70%	DURAPLEX OPTIX SG10 (100%)
Specific Gravity/Relative Density	ASTM D-792 / ISO 1183		1.18	1.17	1.16	1.15
Light Transmission -Total	ASTM D-1003 / ISO 13468-1	%	92	92	90	90
Light Transmission - Haze	ASTM D-1003 / ISO 14782	%	2	2	>3	>3
Water Absorption	ASTM D-570 / ISO 62	% By wt	0.3	0.3	0.3	0.3
Mold Shrinkage	ASTM D-955	mils/in	3-6	3-6	3-6	3-6
Mechanical	Test method	Units	DURAPLEX 30%	DURAPLEX OPTIX SG05 (50%)	DURAPLEX 70%	DURAPLEX OPTIX SG10 (100%)
Tensile Strength	ASTM D-638 / ISO 527	psi	9,000	8,000	7,100	5,600
Tensile Modulus of Elasticity	--	psi	376,000	340,000	304,000	250,000
Flexural Strength	ASTM D-790 / ISO 178	psi	13,690	12,000	10,610	8,300
Izod Impact Strength – Molded Notch	ASTM D-256 / ISO 180	ft-lb/in Notch	0.6	0.7	0.9	1.1
Ball Drop Impact	/ DIN 52306		Pass	Pass	Pass	Pass
Rockwell Hardness	ASTM D-785 / ISO 2039-2		M-78	M-68	M-59	M-46

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Thermal	Test method	Units	DURAPLEX 30%	DURAPLEX OPTIX SG05 (50%)	DURAPLEX 70%	DURAPLEX OPTIX SG10 (100%)
Deflection Temperature @ 264 psi (1.8 MPa)	ASTM D-648 / ISO 75-2/A	°F	198	194	190	185
Coefficient of Thermal Expansion	ASTM D-696 / ISO 1135 ₉	in/(in-°F) x 10 ⁻⁵	3.5	4	4.5	5
Flammability (Burning Rate)	ASTM D-635	In/minute	0.85	1.25	1.53	1.97
Flammability	UL 94 / UL 94		HB	HB	HB	HB
Smoke Density Rating	ASTM D-2843	%	5.2	8.5	11.5	16.5
Self-Ignition Temperature	ASTM D-1929	°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.