

LIGHTING SPECIFICATIONS

Specification page for translucent varieties of LUMAsite® reinforced acrylic sheets and diffusers (often used as a lighting diffuser in the thinner gauges, and in partitions or as a translucent architectural panel in thicker gauges up to ¼”).

Light Transmissions

VARIETIES	PERCENT LIGHT TRANSMISSION						
	(Typical values: air = 100%)						
	.045”	.060”	.090”	.125”	.150”	.187”	.250”
Frost-SOS	82	80	76	72	69	64	59
Parchment-SOS			70	66		55	50
Linen-SOS			65	62		51	
White 1000-SOS	71	70	62	58	55	49	42
Rice-SOS		72	66	62	59	52	44
Sky-SOS		52	46	41		29	20
Jade-SOS		62	55	48		38	30

Physical Properties

PROPERTY	METHOD	VALUE
Flexural strength, 73 F.	ASTM D-790	20,000 psi
Flexural modulus, 73 F.	ASTM D-790	1,000,000 psi
Tensile strength, 73 F.	ASTM D-638	14,000 psi
Compressive strength, 73 F.	ASTM D-695	25,000 psi
Impact strength, 73 F.	Izod, notched	6 ft-lbs/in
Hardness	Barcol impressor	55
Heat distortion temp, 264 psi	ASTM D-648	210 F.
Coeff. of expansion	ASTM D-696	.00002 in/in F.

Observed Deflection of edge-supported flat diffusers:

Thickness	Size	Initial	Two Years	Comments
.045”	24”x 24”	3/16”	1/4”	satisfactory if clipped in place
.045”	24” x 48”	3/8”	1/2”	not recommended
.060”	24” x 24”	1/8”	3/16”	satisfactory
.060”	24” X 48”	1/4”	3/8”	satisfactory if clipped in place
.060”	36” x 36”	5/16”	7/16”	not recommended
.090”	24” x 48”	3/16”	1/4”	satisfactory
.090”	36” x 36”	3/16”	1/4”	satisfactory
.090”	36” x 48”	3/8”	1/2”	not recommended
.125”	24” x 48”	1/8”	3/16”	satisfactory
.125”	36” x 36”	1/8”	3/16”	satisfactory
.125”	36” x 48”	3/16”	3/16”	satisfactory
.125”	48” x 48”	3/8”	3/8”	satisfactory
.125”	48” x 60”	1/2”	3/4”	not recommended