

Lumasite[®] - Distributed by *ArchitecturalPlastics, Inc.*

LUMAsite[®] sheets and diffusers combine the beauty of acrylic with the strength of fiberglass. Random glass fibers and acrylic are cast together, yielding a sheet material with an incomparable combination of desirable properties including toughness, rigidity, weatherability, and low thermal expansion.

COLOR	DESCRIPTION	GAUGE
Frost-SOS Parchment-SOS Rice-SOS	Cobweb Effect, high trans. "Shoji" effect, high trans. wht "Shoji" effect, med-high trans.off wht	.045"-.150" .090"-.125" .060"-.125"
Crystal II Crystal II-SOS Crystal II-POS	Near-Clear Lightly Frosted Diffused	.060"-.125"
White 1000-SOS White 1020 White 2020	High diffusion, opalescent Sign white, translucent display white, translucent	.045"-.150" .090"-.150" .045"-.060"
White 1040 White 1040-POS	Porcelain white, opaque Opaque white, pebbled	.060"-.150"
Sky-SOS Jade-SOS	Pale blue "Shoji" effect Pale green "Shoji" effect	.060"-.125"
Coco Reed Kane Rattan	DISCONTINUED	
DD3448	DISCONTINUED	
Orange 02119 Red 315 Blue 02051 Blue 02114 Green 02030	Bright orange, translucent Fire-engine red, translucent Medium blue, translucent Dark blue, translucent Medium Green, translucent	.060"-.150"
Black 02025 Brown 240-SOS Brown 239-SOS	Black,opaque Chocolate brown, opaque Dark brown, opaque	.060"-.150"
EXIT Red EXIT Green	Hi-Lite red, efficient Light emerald, efficient	.045"-.090"

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Light Transmissions - lighting & architectural varieties							
Color/Gauge	.045	.060	.090	.125	.150	.180	.250
Frost-SOS Parchment-SOS	82	80 71	76 70	72 68	69	64	59
Rice-SOS White 1000-SOS	71	72 70	65 62	61 58	55	49	42
Sky-SOS Jade-SOS		52 62	46 55	41 48			

Light Transmissions - sign background, light box, EXIT varieties						
Color/Gauge	.040	.060	.100	.125	.150	
White 1020 White 2020 Ivory 02146 Yellow 02037 Red 315	42	46 39 50 40 12	35 42 32 8	30 39 26 7	24	
EXIT Red EXIT Green	19 26	18				

All light transmissions are determined using an incandescent light source, and are relative to air (air=100%)

Cold Stress Curvature Limits	
Thickness	Minimum radius*
.060	5 feet
.090	8 feet
.125	12 feet

*Not applicable to Crystal II varieties. Only gentle simple curvature should be imparted to the Crystal II varieties in any thickness.

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Physical Properties	
Flexural Strength	20,000 psi
Flexural Modulus	1,000,000 psi 1,200,000 psi (Crystal II)
Tensile Strength	14,000 psi 15,000 psi (Crystal II)
Compressive Strength	25,000 psi 22,000 psi (Crystal II)
Impact Str.Izod, notched	6 ft lbs/in 10 ft lbs/in (Crystal II)
Coeff. of expansion	00002 in/in deg.F (n/a Crystal II)

**Burning Characteristics of
Reinforced-Acrylic Sheets & Diffusers**

LUMAsite® general-purpose panels incorporate fiberglass reinforcement (about 25% by weight) and acrylic polymer. The GP panel in 1/4" thickness classifies as a CC 2 material, which means that it exhibits a burning rate of less than 2 1/2 inches per minute when tested by the ASTM D-635 method.

LUMAsite® fire retardant panels incorporate the same amount of fiberglass reinforcement, and are not readily distinguished from GP panels. However, the acrylic resin is modified to impart fire retardance using an innovative system that also results in low smoke development.

LUMAsite® fire retardant panels classify as a CC 1 material, which means that they self extinguish when tested by the ASTM D-635 method. In addition, fire-retardant panels in 1/8" thickness fall into a Class C category (NFPA 255), which means they exhibit a flame spread of less than 200 and a smoke development of less than 450 when tested by the ASTM E 84 method. Actual test values for White 1000 SOS FR in 1/8" thickness were 185 (flame spread) and 175(smoke development).

It is also relevant to note that LUMAsite® panels (both GP and FR) do not drip resin or burning polymer during these tests. Although these test results do not reflect the behaviors of LUMAsite® sheets and diffusers in all fire situations, these results can be helpful to material specifiers and code authorities.

Note that this information applies to reinforced acrylic varieties of LUMAsite® sheets and diffusers, including the Frost-SOS, Parchment-SOS, Rice-SOS and White 1000-SOS diffuser varieties. This information does not apply to "Crystal" varieties of LUMAsite® sheets.

General Information

RICE-SOS is a light diffusing panel with a subtle "Shoji" effect. Often used in oriental decor, fixtures, and interior treatments. Rice-SOS panels combine an off-white rice paper appearance and medium-high light transmission. Like all LUMAsite® sheet varieties, RICE-SOS panels exhibit excellent durability, and are easily cleaned with detergent and water.

PARCHMENT-SOS is a light diffusing panel with a subtle "Shoji" effect. As a lighting diffuser or translucent architectural panel, PARCHMENT-SOS combines a clean white appearance and high light transmission.

FROST-SOS is a light diffusing panel with an exotic "silken-cobweb" effect. As a lighting diffuser or as a light-transmitting architectural panel, FROST-SOS combines striking aesthetics and soft diffusion of light. This effect is also available in delicate tints (Sky-SOS, Jade-SOS)

White 1000-SOS is an opalescent, translucent white. Used as a lighting or glazing panel, White 1000-SOS casts diffused, glare-free light. White 1000-SOS is also used as a sign background where maximum light-transmittance is desired.

White 1020 is a translucent sign white commonly used as a background for signs illuminated with high-output fluorescent lamps. White 1020 illuminates evenly, minimizing "hot spots".

White 1040 is a bright white opaque panel suitable for sign and architectural applications. White 1040 panels are available smooth both sides or pebbled on one side (as in White 1040-POS).

White 2020 offers similar diffusion to 1020 but in thinner gauge (.045" and .060") for smaller signs, displays and illuminated advertising panels..

Standard Color panels are available in 11 colors, including translucent and opaque varieties. Custom colors are also available.

EXIT Red, also referred to as "Hi-Lite Red", is a translucent red diffusing panel intended for EXIT fixtures with stencil face-plates. **EXIT Green**, also referred to as "Lite Emerald", is a translucent green panel for stencil fixtures. These panels have a very high light transmission, and at the same time, sufficient diffusion to mask the light source and minimize the "hot spots".

Translucent face panels complete with EXIT graphics (including choice of arrow configurations) are manufactured in 6-inch and 8-inch letter height. The face panels are manufactured by the embedment process. Panels incorporate red graphics on a white background. Typical panel size is 10"x14"x.090 for 8 inch letter height; 7"x11"x.090 for 6 inch letter height.

Near-clear Crystal II sheets are acrylic-modified panels that exhibit shatter proof toughness and outdoor durability.

Crystal II panels are used in glazing applications requiring high light transmission and superior impact

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strength. Panels are available with micrograin gloss, matte, and pebbled surfaces. The standard micrograin gloss is a medium-reflectivity smooth glossy surface that contributes less diffusion than the matte or pebbled surfaces.

Crystal II panels are also used as translucent backgrounds for illuminated signs. Crystal II panels can be decorated on the first or second surface, using vinyl film, paint or silk-screening methods.