

## **Installation & Maintenance of LUMAsite® Sheets and Diffusers**

This page includes recommendations for fabrication, installation and maintenance of **LUMAsite®** reinforced acrylic sheets and diffusers.

### **Installation**

LUMAsite® sheets and diffusers incorporate fiberglass reinforcement and acrylic resin. Sheets can be cut using standard tools. However, these fiberglass-reinforced acrylic materials are extremely tough. It is necessary to reduce feed rates, particularly when cutting or fabricating thicker gauges (3/16" and 1/4" thicknesses), in order to avoid overheating blades or tools.

Carbide circular blades will cut LUMAsite® sheets, but may dull quickly. Abrasive blades (of the kind used to cut masonry) often work better than toothed blades.

LUMAsite® sheets up to 1/8" in thickness can also be cut using a power shear of the kind used to cut sheet metals. For thicknesses up to .090", a shear capable of cutting 14-gauge mild steel is adequate. For cutting .125" thickness, a 12-gauge shear is recommended.

Portable jig saws and saber saws cut satisfactorily with either abrasive-edge blades or with toothed blades. A 14 tpi blade with alternately set teeth (not a wavy set) works satisfactorily at reduced feed rate. Many kinds of router tools, including fluted tools and burs for hand-routing, and up-cut "chipbreaker" tools for automatic equipment, are available. LUMAsite® sheets also can be cut by laser, and by abrasive water-jet methods.

Twist drills and hole saws (including abrasive holes saws) work satisfactorily. However, brad-point drill bits work better. Clamp sheets securely to a firm backing material for drilling.

LUMAsite® sheets are ordinarily installed by mechanically fastening them in place. Pre-drill slightly oversize holes for fasteners, with the holes no closer than 3/8" from the edge. Use metal fasteners, with bonded (metal/rubber) washers to fasten panels in place. In vertical applications, hang the panel such that it is not resting on the bottom edge. Then install remaining fasteners working from top to bottom.

Acrylic foam tape can be used in combination with mechanical fasteners to secure and weather-seal sheets. Silicone sealants and most joint compounds are compatible with LUMAsite® panels.

Two-component urethane adhesives adhere well to many substrates, including LUMAsite® Surfaces (mat and gloss). It is not necessary to abrading the surface. Two clear two-Component urethane adhesives are: Loctite no. U-09FL and Lord Corp. no. 7550A/C.

## **Maintenance**

Maintenance of LUMAsite® sheets after installation primarily involves cleaning the surfaces. Most dirt and soiling are readily removed using a non-abrasive soap and water applied with a sponge or soft brush, then rinsing. Do not use abrasive soaps or polishes. Using abrasive cleaners on the surface can change the reflectivity (making a shiny spot on the satin surface or dulling a glossy surface), or can otherwise scratch the surfaces.

Note that LUMAsite® sheets are acrylic-based, and some solvents will damage the surface. Do not use chlorinated solvents, paint removers, lacquer thinner, acetone or methyl ethyl ketone. To remove marker, crayon and some paints from LUMAsite® sheets, alcohol or mineral spirits can be used (with adequate ventilation and awareness of flammability). “Soft Scrub” cleaner can also be used on LUMAsite® sheets.

Always wear eye protection while fabricating or installing LUMAsite® sheets. Refer to the MSDS for other important safety information.

If additional information is needed, please contact the American Acrylic Corporation Customer Service department, through telephone (800) 627-9025; fax (631) 422-2811 or e-mail **[lumasite@aol.com](mailto:lumasite@aol.com)**.

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