

Sculpting with Spray Foam

Spray Foam is available in different densities. Aside from weight and hence, hardness, all densities are essentially the same. The same sculpting techniques can be used on all.

Hot Wire cutting does not work with Spray Foam because it is very resistant to heat. It is resistant to heat up to 300 degrees. There is also no need for a hot wire because, unlike polystyrene foam for which the hot wire method was developed, Spray Foam can be cut easily with a knife or saw.

Following are some tips and techniques for working with Spray Foam:

- **CARVING AND SHAPING:** A plan view drawing can be transferred to the surface of Spray Foam by placing carbon paper under the plan and retracing the lines with a pencil or ballpoint pen. You can also make a template of poster board to guide scratch lines etched into the surface of the foam with a stylus. With the Spray Foam I, a fondue skewer makes an effective stylus. Any kind of hand saw will cut easily through Spray Foam. You can also use a steel ruler to make push-cuts. A series of push cuts will enable you to cut out complex interior shapes. Just be careful to keep the ruler at a 90 degree angle. Carving knives and chisels virtually glide through Spray Foam. We recommend experimenting with a variety of tools and methods for shaping the foam.
- **SANDING:** Use a sanding block to smooth the surface. A 1/2 inch dowel with 80 grit sandpaper rapped around it makes an effective tool for smoothing interior curved surfaces. A sanding block, emery board, sand stick or fine file is an effective shaping tool.
- **MAKING IMPRESSIONS:** Since Spray Foam has no "memory" or rebound, it will hold an impression. This means that you can create many different types of surface detail by simply pressing the appropriate object into the surface. Surface texture can be enhanced using a tool to make impressions. The rounded end of a thin paint brush handle, for example quickly dents the foam for a brown stone surface effect. If you need a specially shaped rectangular, triangular or odd-shaped hole, consider carving the positive counterpart for a piece of wood. This technique, which is unique to Spray Foam, can save a lot of time on repeating detail.
- **FILLING DENTS AND MISTAKES:** There are several ways to effectively fill the surface texture of the foam and achieve a smooth coat. Dents and other surface imperfections can be filled easily with additional Spray Foam. Harder fillers are not recommended because they will be difficult to sand smooth with the foam's surface. The surface can then be sanded to achieve a plaster-smooth surface.
- **GLUING & BONDING:** Spray Foam can be glued with more Spray Foam. When bonding two blocks of Spray Foam to make a larger block for carving, take care to keep

your adhesive well inside the ultimate shape of your design to avoid having a glue seam that is difficult to carve across.

- **HARD COATING:** The hardest coat will be achieved with a material that remains slightly pliable over time. We recommend a 2-part polyurethane called Ureshell. Unlike Ureshell, some epoxy and polyester resins tend to become brittle after a few weeks of continued curing. The brittle epoxy or polyester coating on Spray Foam may crack or cave in under pressure.
- **PAINTING AND SMOOTH COATING:** Spray Foam can be painted with any kind of water-based or solvent-based paint or coating. An initial coating of Krylon spray paint will help to seal the foam. Solvent-based paints tend to leave surface texture intact, while acrylic paints tend to fill the texture. To achieve a smooth, even glossy surface, start by coating your finished piece with spray paint or any other type of paint or varnish. Then use a soft bristle brush to apply acrylic modeling paste. First thin the paste with acrylic thinner or water to give it the consistency of thick paint. After coating, use a brush wet with water to smooth the paste. When dry, the coating can be smoothed with sandpaper or built up with a second application. Most often, the piece can be as smooth as plaster after one application and a light sanding. A coating of acrylic modeling paste makes a strong shell, which can be built up, sanded, or even tooled.
- **MOLD MAKING:** Spray Foam has been used effectively to make the positive master for a negative fiberglass or silicone molds. Coat the final original piece with a resin coating for best results. Then wax and use a release agent. Spray Foam can also be used effectively for vacuum form molds.
- **CAUTION:** Spray Foam dust can be abrasive and can cause mechanical eye irritation if dust from this product gets in eyes. To help prevent this from happening, do not rub eyes when using and wash hands after use to remove any adherent particles. If you note eye irritation, flush your eyes with luke warm tap water. If irritation persists, see your physician. Use of safety goggles when sanding or using power tools can decrease the risk of particles getting into eyes. In addition, a dust mask is recommended when power tools are used. Also, wipe off metal and steel tools after using them with Spray Foam; prolonged contact will result in rusting or tarnishing if the tools are not cleaned after each use. Spray Foam will corrode and tarnish all metals and metal alloys.