

TECHNICAL INFORMATION

ACRYLITE® Soundstop Wet Sanding Procedure

Scratch Removal for ACRYLITE® Panels



Removing Fine Scratches

Fine scratches can be removed by simple hand polishing. Apply a plastic scratch remover such as NOVUS 2 to a soft flannel pad and rub in a circular motion. When the scratches have disappeared, remove all residue with a rag and buff or polish by hand.

Removing Deeper Scratches

A deep scratch, as opposed to a fine scratch, is one that would catch your fingernail as you run across it. Since the thickness of your fingernail is about 0.015", then a deep scratch is typically considered anything wider or deeper than 0.015". Deeper scratches must be sanded out and then polished.

When sanding acrylic sheet, you are essentially removing the surrounding surface area until the surface is at the same level as the bottom of the scratch. Then the polished surface area is sanded and blended in.

Depending on the severity of the scratch you may need to start with a coarse 80 grit, 120 grit, or 220 grit

sandpaper. You can then move on to finer grit sandpaper as you continue through the multi-step process. First wet sand lightly with the appropriate grit "wet or dry" sandpaper, using plenty of water and rinsing the sandpaper frequently. Repeat and continue with 400 or 600 grit "wet or dry" sandpaper, and then 800 grit "wet or dry" sandpaper. Next buff the acrylic sheet with a clean cotton or flannel covering on a rotary buffer and a good automotive grade rubbing compound until the compound and scratch are removed. Repeat if necessary.

When sanding acrylic it is important to use a sandpaper acceptable for wet sanding. Wet sanding uses water to help mitigate heat produced from the friction of the sanding process which could in turn melt the surface, gum up the process, and/or leave behind material stress which over time could lead to surface crazing or a cloudy surface appearance.

Tools Needed

- 120V Power Supply (household power or a generator)
- Orbital sander with 5" diameter pad or alternate sander
- Rotary Buffer with 7" diameter pad or alternate buffer
- 5" sanding pads for wet sanding in 80, 120, 220, 400, 600, and 800 grit
- Wool bonnet for rotary buffer
- Automotive grade rubbing compound such as Turtle Wax Premium Rubbing Compound
- Spray bottle + water
- Paper towels

Procedure

1. Spray the area to be sanded with water and wipe away any debris that is on the surface to prevent grinding any surface debris into the material when beginning sanding.
2. Re-wet the area after cleaning and with 80, 120, or 220 grit sandpaper (depending on the scratch severity) and start the orbital sander and begin sanding the surface. Note - turn on and off the sander with it away from the surface of the acrylic to minimize swirl marks on the surface.
3. The first sanding step is the one that removes small amounts of the acrylic surface and gets to the bottom of the scratch. Periodically wipe the area clean and look to see if the scratch is gone. Be sure to re-wet the area before resuming sanding. Note – try to sand only in the immediate area of the scratch since subsequent steps must sand a slightly larger area to make sure the heavier sanding marks are removed. The area will get progressively bigger as you step through the process from rough to finer grits of sandpaper.
4. When the scratch appears to be gone, remove the current grit of sandpaper and sand with the next finer grade. These intermediary sanding steps are quicker than the first step. They generally require 2 repetitions to remove marks from the previous grit.
5. Repeat until finishing with at least 800 grit sandpaper.
6. Next apply approximately 2 tablespoons of rubbing compound on the wool bonnet on the rotary buffer. Without turning the rotary buffer on, rub this compound around the area to be buffed. This will help to minimize the amount of compound that gets spread around by the high speed rotary motion. With the buffer pad on the surface of the acrylic, start it at slow speed to spread out the compound a little more. Then turn it up to high speed and begin buffing. Note – this high speed rotary action can heat up and damage the surface so be sure to move the buffer around and not dwell in a specific area. Reapply rubbing compound as needed, generally 3-4 repetitions are needed to buff away the 800 grit marks and leave a highly polished surface.
7. Inspect the result. If cloudy areas are seen then continue buffing to remove them. If objectionable swirl marks are seen, then go back over these with 400 grit sandpaper and repeat the process through 600, then 800, and then buff again.

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Roehm America, LLC
1796 Main Street, Sanford, ME 04037 US
Phone +1 855 202 7467
www.acrylite.co