



## Recreational Vehicle Repair Techniques

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### Please Read All Instructions Before Beginning

These guidelines are provided in good faith, but without guarantee. The manufacturer and/or distributor of the product bear no responsibility for actions taken or not taken. There are many nuances of repair techniques that are assumed to be general knowledge; such nuances are not included in these instructions. Rather, these guidelines are strictly recommendations and are not intended to serve as a step-by-step, foolproof repair checklist. Selection of an experienced repair facility is the sole responsibility of the owner.

Since conditions of use are beyond Crane Composites' control, all risks are assumed by the user. Nothing herein shall be construed as a recommendation for uses which infringe on valid patents or as extending a license under valid patents.

**If you have any questions about installation or repair techniques for your particular project,** please call 1.800.435.0080 or 1.815.467.8600 and ask for Customer Care or e-mail the RV Application Engineer at [rvapplicationengineer@cranecomposites.com](mailto:rvapplicationengineer@cranecomposites.com).

**CAUTION: Wearing disposable latex gloves, goggles, and use of an OSHA approved respirator are recommended. Read and follow all manufacturer safety recommendations on labels of materials used for repair. Some materials may be flammable and should be used with caution.**

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### Safety Precautions

1. Protect your eyes with goggles, cover your nose and mouth with OSHA-approved respirator, and wear gloves when cutting and sanding fiberglass and using polyester resin and cleaning solvent.
2. Resins and solvents are highly flammable. Do not smoke or use electric tools that cause sparks. Always read the caution labels on all solvent containers and take the necessary precautions.
3. Make sure the work area is well-ventilated.



## Supplies and Equipment

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### Paint, Fillers, and Fiberglass

- Polyester resin\* (for rebuilding integrity of sidewall panel)
  - Fiberglass mat (for rebuilding integrity of sidewall panel)
  - Lacquer thinner\* (for restoring the surface finish)
  - Color matched lacquer/paint\* (for restoring the surface finish)
  - Hand glaze\* (for restoring the surface finish)
  - Sandable primer\* (for paint pen or plastic wrap texturing method)
  - Color matched two-part polyurethane paint\* (for paint pen or plastic wrap texturing method)
  - Two-part spot filler\* (for shallow scratches and pin holes)
  - Glass-filled, low-shrink polyester filler\* (for deep depressions)
  - Acetone or other acceptable cleaning solvent\* (for degreasing and tool clean-up)
  - Acrylic sealer\* (for plastic wrap texturing method)
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### General Supplies

- Cellophane film
  - Plastic wrap (for plastic wrap texturing method)
  - Sanding discs — silicone carbide, grits from 60 through 320
  - 400 grit pad
  - Buffing compound\*
  - Cups for mixing resin
  - Mixing sticks and spreaders
  - Utility knife
  - Paint brush — 2" disposable
  - Masking tape
  - Clean rags
  - Non-porous surface (for mixing fillers)
  - Paint pen (for paint pen texturing method)
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### Equipment

- Disc sander
  - Air compressor
  - Two spray guns
  - Buffer
  - Bench-type work surface
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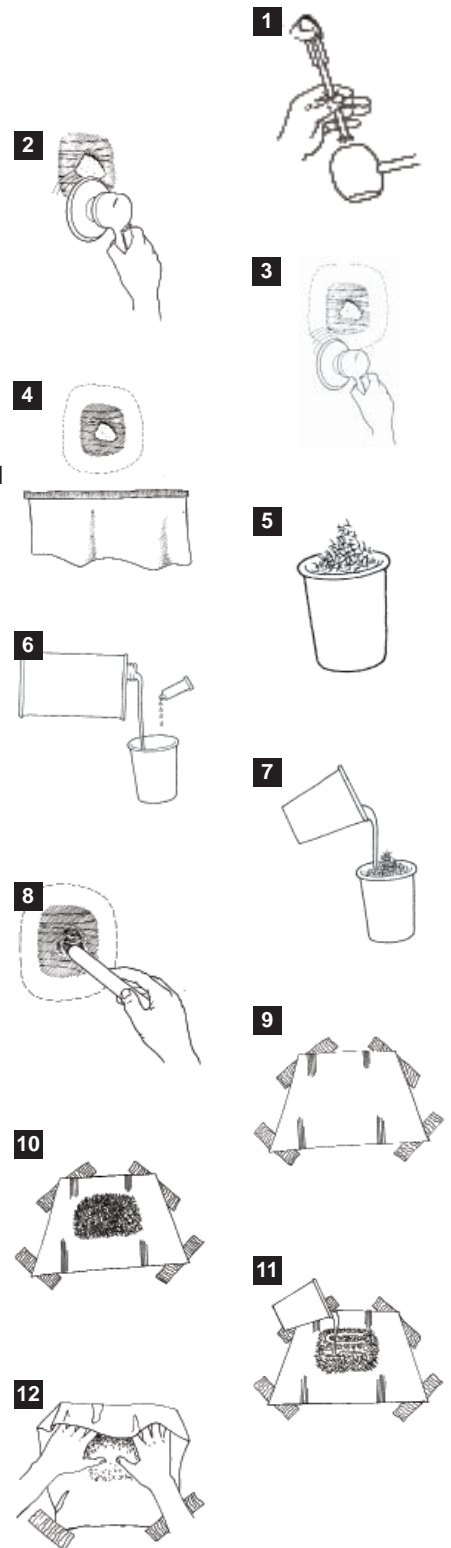
**Caution:** These materials are flammable. Proper precautions for use must be followed. Read manufacturers' directions carefully before beginning repairs.

## Repair Techniques for Filon Coiled Panels

### Severe Damaged Repair Procedure

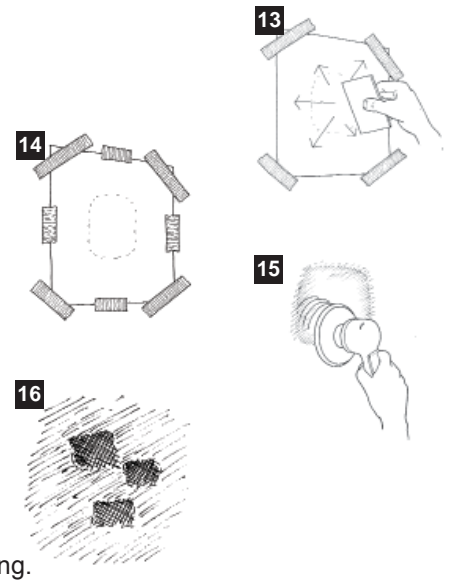
#### Deep Gouge or Tear

1. Use a chisel to dig out all broken pieces of Filon skin and lauan.
2. Sand a 2" taper from the inside edge outward all around the lauan on the fiberglass skin. Abrade the Filon surface another 4" to 5" beyond the taper with 120 grit sandpaper to eliminate gloss and assure good adhesion of repair materials.
3. Use coarse, 60 or 80 grit sandpaper and sand away the fiberglass skin. Expose 4" to 6" of lauan backing and remove all traces of bonding adhesive.
4. Blow off all the dust and wipe the area with a clean rag and solvent. Mask the area below the repair to catch any resin run-off.
5. On the work surface, cut a small piece of fiberglass mat into small chunks and set them aside in a mixing cup. Also, cut a piece of 6 oz. fiberglass mat to fit the tapered area. Set it aside.
6. Fill a mixing cup with enough polyester resin to saturate the cut mat, plus 1/3 more for the mat in the mixing cup. (6 oz. of resin by volume will saturate 1 sq. ft. of 6 oz. mat.). Add catalyst for 20 to 25 minutes working time. Refer to the resin manufacturer's recommendation for the correct amount.
7. Pour a small amount of catalyzed resin into the mixing cup containing the chopped fibers. Mix thoroughly. Add more resin if needed, but keep this mix as thick as possible, so it doesn't run.
8. Working quickly, use the 2" paint brush to give the repair area a generous coating of the catalyzed resin. Then, with the spatula, press the filler mix into the cavity, until it is flush with the surface.
9. Spread a sheet of cellophane film on the work surface that is at least 8" larger than the repair area. Attach masking tape strips to the underside adhesive side up.
10. Center the cut piece of mat on the film on the work surface. **Tip: Additional layers of mat may be needed, depending on the depth of the repair area. Be sure each subsequent layer of mat is 2" smaller than the previous layer.**
11. Working quickly, pour a generous amount of catalyzed resin onto the mat on the work surface in a fairly even pattern, saturating the entire surface of the mat. **Tip: Save mixing cup of leftover resin to check cure later.**
12. Lift the mat/film sandwich up to the repair area, supporting it from underneath, so the mat won't pull away from the film and fall apart. Press the saturated mat/film sandwich, holding it there with the masking tape.



### Severe Damage Repair Procedure | Deep Gouge or Tear (continued)

13. Using the spreader as a squeegee, stroke outward from the center toward the edges with slight pressure to work the resin through the mat until it is completely saturated. Work any excess resin to 1 corner, lift the film, and pick up the surplus.
14. Work the area with the squeegee until it is flat, and flush with the adjacent surface. Tape the film securely and let the repair cure. (Cure time will vary, refer to the resin manufacturer's recommendation.)
15. When resin is cured, remove the film. Using 80 grit sandpaper, sand off ridges and high spots, and make the area flat and flush with the surrounding surface. If necessary, check for flatness with a straight edge. Fill any deep, low spots with polyester filler. Let cure.
16. Pin holes, shallow depressions, and scratches should be filled with the two-part spot filler. Fill and sand the repair until the area is smooth and even with the existing wall. Use successively finer sandpaper grits to prepare the surface for painting.

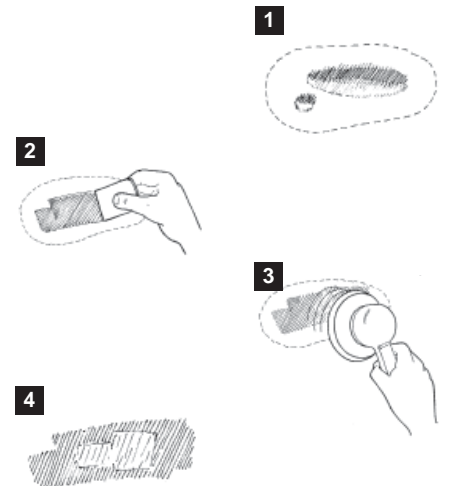


**Tip: Always clean the surface before using the next finer grit sandpaper.**

### Deep Scratch or Puncture Repair Procedure

#### Deep Scratch or Puncture

1. With 80 grit sandpaper clean out debris and fibers, and make a slight "V", tapered outward. Widen the sanded area 2" to 3" beyond the damaged area. Blow off all dust and wipe the area clean with cleaning solvent.
2. Catalyze a quantity of the glass-filled, low shrink polyester filler and press the mix into the depression, filling it completely. Work the mix to eliminate all air bubbles and level it out, leaving it slightly higher than the surrounding area.
3. When cured, sand the filled area with 120 grit sandpaper until flush. Blow off dust and wipe area clean with cleaning solvent.
4. Fill any remaining depressions and pinholes with two-part spot filler. Sand again with 120 grit sandpaper until flat and smooth. Blow off dust and wipe clean.

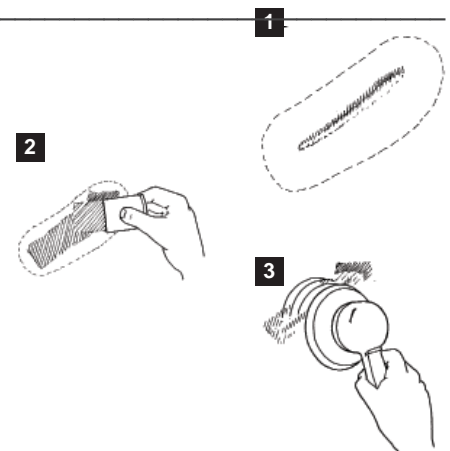


**Tip: Always clean the surface before using the next finer grit sandpaper.**

### Shallow Scratch Repair Procedure

#### Shallow Scratch

1. Sand out the scratch or crack by hand with 120 grit sandpaper. Sand 2" to 3" beyond the scratch to eliminate gloss. Wipe off dust with a clean rag and solvent.
  2. Fill the depression with two-part spot filler. Let cure.
- \*Note: If a heat gun is to be used in removing graphics, Crane Composites recommends operating the gun at low temperatures in order to avoid further cracking the gel-coat finish.**
3. Sand the filler with 120 grit sandpaper. Blow off dust and sand with 120 or finer grit paper, making area smooth and flat. Clean off the dust.



**Tip: Always clean the surface before using the next finer grit sandpaper.**

## Surface Scratch Repair Procedure

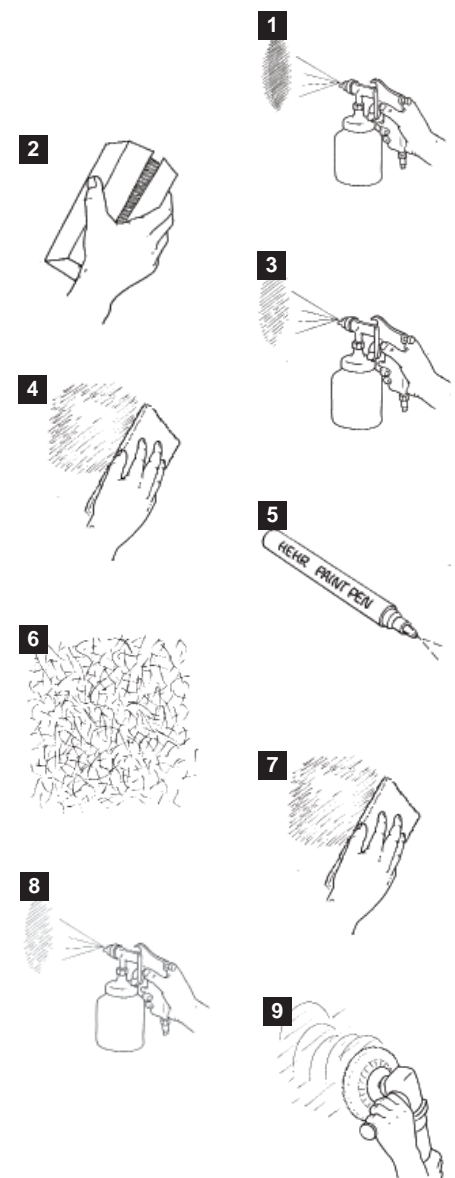
1. Sand scratch with orbital sander using 600 grit sandpaper.
2. Sand further with 1200 grit sandpaper.
3. Follow up with heavy buffing using AQUA-BUFF™ or similar compound. May need to use a high speed electric buffer to get the rpm's needed.

**For deeper or more severe damage, use standard conventional fiberglass resin repair techniques, prime, and paint. Paint or lacquer give a better finish than gel-coat.**

## Paint Pen Texturing Repair Procedure

This method utilizes a sandable primer which is an aid for getting the repair area perfectly flat and for producing an orange peel finish. The fiber texturing is added with a special fine tipped paint pen (do not use a marking pen). The finishing coat is a two-part polyurethane enamel paint.

1. Spray the area with sandable primer. Let dry. Tip: Before final painting, the area must be perfectly flat with no pinholes or sanding marks. Note: To avoid a color mismatch or at least make it less noticeable, plan the painted area to fall between natural breaks in the wall, (i.e. between windows or between the top molding and a trim stripe). The age of the unit will also affect the color match and may show the need to paint the entire sidewall.
2. Hand sand the entire area using a sanding block and 320 grit sandpaper. Feather the edges. Wipe the area with cleaning solvent.
3. Prime the area again, this time holding the spray gun 12" to 18" away to create an orange peel finish. Let dry.
4. Sand the area lightly with the 400 grit pad to abrade the surface for good adhesion. Clean with cleaning solvent.
5. To simulate the fiber texture, first sharpen the felt tip on the paint pen with a sharp knife or razor blade, so it will make the finest line possible.
6. Next, make short, random directional marks on the repair surface with the paint pen. Closely space these marks in a vertical, horizontal, and diagonal direction over the entire area. Compare the marks with the surrounding area to make sure they match the Filon fiber texture. Let dry.
7. Use the 400 grit pad to lightly sand the area just textured and a 10" to 12" perimeter beyond for blending the new paint to the Filon. Blow off all dust and wipe the area with a clean rag and solvent.
8. Mix paint to match. Spray just the textured area with several coats to cover the repair. For blending, reduce the paint to a thinner consistency and spray again covering the 10" to 12" perimeter. Let dry.
9. Buff the area with a buffing compound. Follow up with hand glaze to eliminate swirls. The repair is now finished.



## Paint Wrap Texturing Repair Procedure

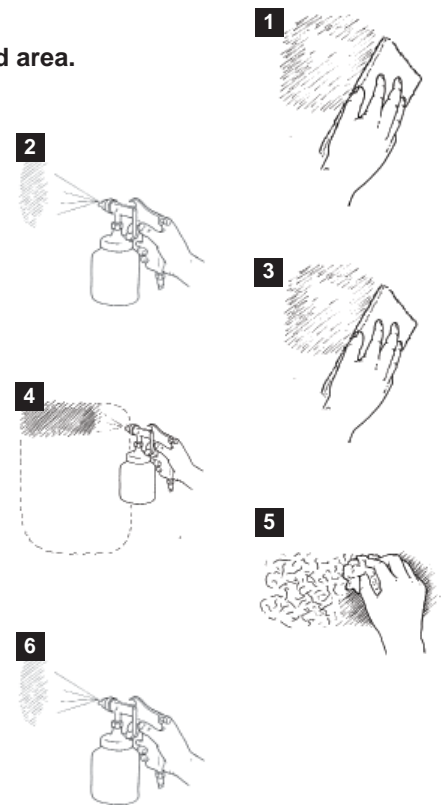
This texturing method uses crumpled plastic wrap, dabbed over the freshly painted area.

1. Do a final sanding with the 400 grit pad, and extend this sanding over the entire area that will be painted to abrade the surface for good paint adhesion. Blow off all the dust, and wipe the area with a clean rag and solvent. The wall is now ready for the color coat.

**Note: To avoid a color mismatch or at least make it less noticeable, plan the painted area to fall between natural breaks in the wall (i.e., between windows or between the top molding and a trim stripe). The age of the unit will also effect the color match and may show the need to paint the entire sidewall.**

2. Spray the area with a coat of sandable primer.
3. When dry, wet sand with 600 grit sandpaper to eliminate all previous sanding marks. Wipe the area clean with a clean rag and solvent.
4. Spray acrylic sealer on a small section, and while it is still wet, dab the area with a crumpled piece of plastic wrap.
5. The pattern left by the crumpled wrap will simulate the Filon fiber surface texture. Repeat the procedure by spraying small sections at a time. Use fresh plastic wrap as needed to achieve the Filon texture look. Let dry.
6. When the area has been completely textured, spray on 3 light coats of color matched paint. To blend the perimeter, spray thinner, lightly over the area working from the outside toward the center. Once the repair is dry, buff the repair area with buffing compound to blend it into the surrounding area. The repair is now finished.

**Tip: Hand-applying a glazing compound may assist in removing any swirl marks caused from buffing.**



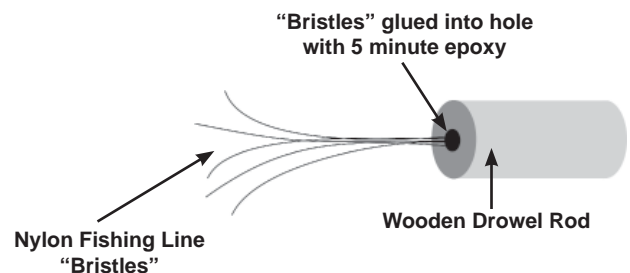
## Texturing Tool Repair Procedure

### Materials

- 1/2" Diameter Wooden Dowel Rod 2" to 3" Long
- 0.009" Diameter "Monofilament Fishing Line"
- 5 Minute Epoxy

### Procedure

1. Drill 1 hole, approximately 1/8" in diameter, 1/2" deep into the end of the wooden dowel. A larger dowel may be used if more bristles are desired for texturing a larger area.
2. Cut 5 or 6 pieces of fishing line into segments approximately 3 1/2" to 4" long. The inherent curve in the line is necessary. Do not try to straighten.
3. Mix enough epoxy to fill the hole in the dowel.
4. With the dowel secured in an upright position, fill the hole in the dowel with epoxy and insert the bristles into the hole. Make sure the bristles are arranged so that they curve outwardly, and they are well-separated. Work fast as the epoxy hardens very quickly. It may be necessary to keep the bristles separated until the epoxy begins to set.



## Texturing Tool Repair Procedure (continued)

### Notes

1. The “bristles” must be separated enough, to prevent sticking together during the texturing procedure.
2. The diameter of the fishing line used determines the size of the texture. A slightly smaller or larger line may work better, but it must be stiff enough to produce the texture. A line of 0.009” usually produces an acceptable appearance.
3. The bristles may be trimmed and/or curled to achieve the desired effect.

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## Texturing Tool Repair Procedure for Single Stage Acrylic Urethane

### Dupont ChromaOne or Equivalent

This method makes use of a simple tool to imprint a fiber-like texture into a freshly painted surface. This procedure begins at the point after the color coat has been applied to the surface of the repair.

### Before Beginning this Procedure

- Have on hand at least one of the texturing tools as described in this section.
- Ensure the air supply is equipped with a oil/water trap in working condition or use a disposable filter at the gun.
- Thoroughly clean the area to be repaired with a wax and grease remover to remove any residue prior to beginning the repair. It’s a good idea to clean 1” to 2” beyond the anticipated repair area. Silicone or other contaminants (found especially around some window moldings) are invisible to the eye, but can ruin an otherwise good repair with fisheyes.

### Procedure

1. Mix enough paint to cover the repair area in 2 to 3 coats. Thin as required per label directions. Note: Different brands and spraying conditions may warrant slight adjustment of the mixing ratio to achieve the desired results. The mixture and drying time will directly affect the profile of the texture.
2. Spray a full wet coat to the prepared surface, extending 2” to 4” beyond the edges of the repair. Avoid excessively heavy coats or heavy orange peel.
3. Let this coat flash for 30 to 60 seconds. This time varies with conditions. This coat should be just wet enough to prevent the texturing applied in the following steps from flowing out too much.
4. Begin applying the texture by dabbing/blotting the texturing tool into the wet surface. If the surface is at the correct stage of dryness, there should be a slight resistance when the tool is withdrawn from the surface. Continue this until the entire repair surface is textured. This step must be done as quickly as possible because as the coating continues to dry, the texturing tool will begin to leave undesirable marks or bubbles in the surface. Note: Blotting the texturing tool into the center of the repair where the paint is the wettest, and then depositing the paint into the outer edges will produce a more defined texture on the outer edges. Wipe the texturing tool periodically during use to prevent build-up of dried paint.
5. Allow to flash per the label direction and apply required number of coats to achieve coverage. Texture successive coats in the same manner as stated above.
6. Immediately follow final coat with blender over the entire area to blend edges (overspray) with the surrounding surfaces.

## Lacquer Automotive Spray Paint Repair Procedure

Use this method for instances where color matched lacquer paint is not acceptable and a high quality premixed lacquer automotive spray paint is preferred for the color coat of the repair.

1. Do final sanding with the 220 grit sandpaper and then 320 grit to eliminate all sanding marks. Then use a 400 grit pad and extend this sanding over the entire area that will be painted to abrade the surface for good paint adhesion. Blow off all the dust. Use a clean rag to wipe the area with cleaning solvent. The wall is now ready for the color coat.
2. Using the directions on the back of the color matched spray paint, apply several coats of color spray paint to the repaired area.
3. When the lacquer paint is completely dry (remembering that it takes longer for the clear coats to dry), power buff the area with buffing compound. This action further blends and softens the texture to match the luster of the factory finish. Check the buffing progress often to avoid losing the texture.

When the buffing is completed, wash and clean the area thoroughly. The repair is finished.

**Note: If a perfect match is not available, it is better to get the paint a little on the yellow side. Buffing will hide this color difference.**

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## Filon High Gloss Finishing Repair Procedure

1. Do final sanding with the 220 grit sandpaper, and then 320 grit to eliminate all sanding marks. Then use a 400 grit pad and extend this sanding over the entire area that will be painted to abrade the surface for good paint adhesion. Blow off all the dust. Use a clean rag to wipe the area with a cleaning solvent. The wall is now ready for the color coat.
2. Spray the area with several coats of color matched lacquer, thinned to normal consistency, making sure to feather the edges of the repaired area with the original finish.
3. Spray the edges of the painted area with slow dry lacquer thinner to eliminate the halo effect.
4. When the lacquer is completely dry, power buff the area with a buffing compound. This action further blends the repair to match the luster of the factory finish.
5. When the buffing is completed, wash and clean the area thoroughly.
6. If enamel or urethane paints are to be used, then step 3 should be omitted.

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## Filon Embossed FlexRoof Crack Repair Procedure

### Prepping the Area to be Repaired

Clean the affected area with soap and water. Then, wipe down the area with a soft cotton rag and lacquer thinner, being careful not to leave the lacquer thinner in one spot too long. Radius edge areas to be repaired should remain in the radius position both during and after the repair.

### Deep Cracks or Deep Scratches

1. Using an 80 to 220 grit sanding pencil, lightly sand the crack or scratch.
2. Fill the depressions with a flexible two-part spot filler, being careful not to distort the embossed finish.

## Filon Embossed FlexRoof Crack Repair Procedure | Deep Cracks or Deep Scratches

3. If shrinkage occurs once the spot filler has dried, the affected area may be re-treated in 1 of 3 ways:
  - Re-treat the area with spot filler
  - Treat the area as a medium size crack
  - Treat the area as a small size crackOnce the depression is filled and cured, color matched lacquer paint can be applied to the repaired area.
4. After the paint area dries, refer to the finishing section of this repair procedure.

## Medium Size Crack

1. Clean affected area as described in the "Prepping the Area to be Repaired" section.
2. Using a pin stripping brush, fill the depression with a high build lacquer primer, thinned according to the manufacturer's recommendations. The type of thinner used will depend on the climate in which the repair is made. The paint supplier can make recommendations on the thinner selection.
3. After drying is complete, check the depression for shrinkage and re-apply primer mixture until the depression is filled.
4. Once the depression is filled and cured, apply color matched lacquer paint to the affected area.
5. After the painted area has dried, refer to the finishing section of this repair procedure.

## Shallow or Small Size Cracks

1. Clean affected area as described in the "Prepping the Area to be Repaired" section.
2. Using a pin stripping brush, apply a thinned, color matched lacquer paint to the affected area. Again, the paint supplier can make recommendations on the type of thinner to use, according to the climate in which the repair is made.
3. Once the paint has dried, check for shrinkage, and re-apply paint as needed.
4. After the painted area has dried, refer to the finishing section of this repair procedure.

## Multiple Cracks

For areas with multiple cracks, a spray application technique may be used.

1. Clean affected area as described in the "Prepping the Area to be Repaired" section.
2. Spray the affected area with a high build lacquer primer thinned appropriately for the climate in which the repair is to be made.
3. Once the primer is dry, check for shrinkage, and reapply primer as needed.
4. After priming, apply a thinned, color matched lacquer paint to the affected area.
5. When the painted area has dried, refer to the finishing section of this repair procedure.

## Finishing

After painting the affected area, the color may seem to flatten out. There are 2 suggested ways of restoring the gloss:

1. Buff the repaired area.
2. Using a paint sprayer, apply slow drying lacquer thinner to the affected area, being careful not to produce runs. This action will bring out the gloss and eliminate any halo affect that might have been produced by the repair.

**NOTE: The age and condition of the roof may dictate the need to paint the entire roof.**

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## Repair Techniques for Noble Sheet Glass Panels

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### Mirror Scratch Repair Procedure

1. Be sure that the surface of the scratched area is clean.
  2. Spray the scratched area with a light mist of dark spray paint, making sure that the paint gets down into the groove of the scratch. The light mist of paint allows you to see where the scratch is as you are sanding, and also gives you a guide for sanding only as much as you need to remove the scratch.
  3. Begin sanding with 220 grit sandpaper. Sand an area approximately 3 inches around the scratch.
  4. Begin your final sanding with 400 grit sandpaper.
  5. Begin buffing with buffing compound to remove any fine sandpaper scratches.
  6. Begin the final buffing with a clean buffer pad and use a 50/50 combination of buffing compound/glazing compound to restore the gloss of the original gel-coat.
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### Major Scratches and Gouges Repair Procedure Through Gel-coat into Laminate

1. Make sure that the repair area is clean. Make sure that the scratch or gouge has all dust or grime removed from the scratch. Wipe thoroughly with acetone.
  2. Mix 2% catalyst to gel. Fill the scratch or gouge with gel-coat. Apply extra gel-coat to allow for normal shrinkage. Allow gel-coat to completely set up.
  3. Begin the initial sanding with 220 grit sandpaper.
  4. Begin the final sanding with 400 grit sandpaper.
  5. Begin buffing with buffing compound to remove any fine sandpaper scratches.
  6. Begin final buffing by using a clean buffer pad and use a 50/50 combination of rubbing/glazing compound to restore the gloss of the original gel-coat.
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### Repairing Cracks, Air Voids, or Other Major Impact Damage

1. Begin by cutting out a rectangular or square area around the repair site with a die grinder. Cut down through the gel-coat and the laminate (Do not cut through the lauan plywood backer) and then remove the gel-coat/laminate layer from the plywood backer by using a putty knife to pry it off. Use the die grinder to taper off the edge of the gel-coat/laminate around the perimeter of cut out area, taper it back about ½" at a 45 degree angle.
2. Make sure that all of the laminate is removed from the surface of the lauan plywood. Lightly score the face of the lauan plywood with the edge of the die grinder to promote a better bond between the lauan plywood and the new fiberglass that will be applied. Clean off any dust that remains on the repair area.
3. Using 1 ½ oz. fiberglass mat cloth, cut the mat to the size of the repair area (including the ½" x of taper around the outside edge of the repair area). Use 3 layers of 1 ½" oz. mat.

## Repairing Cracks, Air Voids, or Other Major Impact Damage (continued)

4. Catalyze your polyester resin as directed by the resin manufacturer. Holding the first layer of mat on the repair area, begin brushing the polyester resin onto the fiberglass mat until the mat is completely wetted out. Continue adding layers of mat in the same manner. Once all three layers of mat are wetted out, use a small roller to roll out any air bubbles.
5. Allow the polyester resin to set up (reach its peak curing temperature) and begin cooling down. Begin sanding the fiberglass repair area using 40 grit sandpaper. Make sure that the sander has a very stiff backer for the sandpaper disk so that you are sanding flat. Sand off the excess polyester resin and fiberglass. Switch to 80 grit sandpaper, continue sanding until repair area is flat. Be careful not to sand a depression into the surface of the repair area.
6. Use 220 grit sandpaper to do the final repair sanding to prepare area for gel-coat application. Sand an area about 3" to 4" around the repair. Wipe the repair area with clean, fresh acetone to remove any dust.
7. Mask off the area around the repair.
8. Spray un-thinner gel-coat onto the repair surface being careful not to have drips or globs. Spray enough gel-coat to allow for an approximate 20% shrink.
9. Allow at least 4 hours for the gel-coat to cure. Allowing an overnight cure is the best possible cure.
10. Wipe the cured gel-coat surface with fresh, clean acetone before sanding.
11. Begin the initial sanding with 220 grit sandpaper.
12. Begin the final sanding with 400 grit sandpaper.
13. Begin buffing with a clean buffer pad using buffing compound to remove any fine sandpaper scratches.
14. Begin final buffing by using a clean buffer pad using a 50/50 combination of buffing/glazing compound to buff gelcoat to the gloss level around the repair.

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## All-Composite Wood-Free Crack and Hole Repair Procedure | Noble Select

### Cracks

Begin by grinding down through the gel-coat and the laminate with a 5" grinder and 80 grit sandpaper (DO NOT GRIND THROUGH THE INTER CORE). Use the grinder to taper off the edge of the gel-coat/laminate around the perimeter of the grind out area, taper it back about 1/2" at an angle.

### Holes

Begin by using the grinder to taper off the edge of the gel-coat/laminate around the perimeter of the hole tapering it back about 1/2" at an angle.

1. Using 1-1/2 oz. fiberglass mat, cut the mat to the size of the repair area (including the 1/2" of taper around the outside edge of the repair area). Use 3 layers of 1-1/2 oz. mat.
2. Catalyze your high-grade polyester resin (a good tooling resin is preferred) as directed by the resin manufacturer. Holding the first layer of mat on the repair area, begin brushing the polyester resin onto the fiberglass mat until the mat is completely wetted out. Continue adding the other layers of mat in the same manner. Once all three layers of mat are wetted out, use a small roller to roll out any air bubbles (it is very important that all the air bubbles are rolled out).
3. Allow the resin to set up (reach its peak curing temperature) and begin cooling down. Begin sanding the new laminate with the 5-inch D.A. and 80-grit sandpaper. Sand the laminate smooth or until it is even with the rest of the wall. Make sure that the D.A. has a stiff backer for the sandpaper disk so that you are sanding flat. Fill in all pits and holes with ad-tech filler or Mil fiber and resin. Sand down smooth. Be careful not to sand a depression into the surface of the repair area.
4. Use a 5-inch D.A. with 220-grit sandpaper to do the final repair sanding to prepare area for gel-coat application. Sand an area about 3" to 4" around the repair. Wipe the repair area with clean fresh acetone to remove any dust.

## All-Composite Wood-Free Crack and Hole Repair Procedure (continued)

5. Mask off the area around the repair.
6. Spray un-thinned gel-coat onto the repair surface being careful not to have drips or globs. Spray enough gel-coat to allow for an approximate 20% shrink (1 light mist coat then 2 thicker coats of gel-coat should be sufficient).
7. Allow at least 4 hours for the gel-coat to cure.
8. After the gel-coat is set up wipe the entire area with fresh acetone to take off tackiness before sanding.
9. When sanding out scratches and gouges follow the next steps.
10. Apply blue Dykem as a guide coat (sand until the blue is gone). Begin the initial sanding by sanding the entire repair with a 5-inch D.A. using 220-grit sandpaper. Once again be sure you keep the D.A. flat at all times.
11. Apply more Dykem.
12. Sand the entire repair with a 5-inch D.A. using 400-grit sandpaper (if you are painting the wall, this is where you would be finished).
13. Apply more Dykem.
14. Sand the entire repair with a 5-inch D.A. using 800-grit sandpaper.
15. Begin buffing with a clean buffer pad. Use a heavy-duty buffing compound to remove all D.A. sanding marks. Do not use excessive buffing pressure. Use plenty of compound to lubricate and cool the gel-coat surface. As the compound begins to dry out, lighten up on the buffer.  
Caution: Be very careful not to generate too much heat from over buffing. The Noble Select wall has an inter core that contains small micro spheres, when over heated, may expand and swell the core leaving a hard bubble.
16. Begin final buffing by using a clean buffer pad. Use a 50/50 combination of a light-duty compound and glaze compound in order to remove all swirl marks and bring the gel-coat to a high gloss level.

**Crane Composites sidewalls vary by model and it is difficult to determine which panel was used. Please contact your Crane Composites Warranty Department for more information.**

If You Have any Questions or Need Additional Assistance, Please Do Not Hesitate to Contact the Crane Composites Customer Care Department at 1.866.212.8768

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