

# **FILON® & NOBLE®**

FIBERGLASS RV SIDEWALL + ROOF  
**REPAIR GUIDE**



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FIBERGLASS REINFORCED PANELS

## REPAIR GUIDE FOR EXTERIOR FIBERGLASS SIDEWALLS AND ROOFS

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### TOPICS

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### DISCLAIMER

PLEASE READ ALL INSTRUCTIONS BEFORE BEGINNING INSTALLATION

**THESE INSTRUCTIONS ARE SPECIFIC TO CRANE FIBERGLASS PANELS ONLY. IF YOU ARE UNSURE WHO THE MANUFACTURER OF YOUR FIBERGLASS SIDEWALLS ARE, PLEASE CONTACT THE RV ORIGINAL MANUFACTURER.**

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 VALTO's 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 the RV Application Engineer.

**CAUTION:** Wear disposable latex gloves, goggles, and use OSHA approved respirator. 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.

SEE OUR MOST CURRENT SDS AT [VALTOEM.COM/SDS](http://VALTOEM.COM/SDS) PRIOR TO WORKING WITH OUR PRODUCTS

# GENERAL INFORMATION

## Safety Information











- 1. Protect your eyes with goggles, cover your nose and mouth with an OSHA-approved respirator, and wear gloves when cutting and sanding fiberglass, also when 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

Common supplies are listed below.

**WARNING**

THE ITEMS BELOW MARKED WITH A  ARE FLAMMABLE. PROPER PRECAUTIONS FOR USE MUST BE FOLLOWED. READ MANUFACTURERS' DIRECTIONS CAREFULLY BEFORE BEGINNING REPAIRS.

EQUIPMENT		APPLICATION
 POLYESTER RESIN*		Rebuilding integrity of sidewall panel
FIBERGLASS MAT		Rebuilding integrity of sidewall panel
 LACQUER THINNER*		Restoring surface finish
 COLOR MATCHED LACQUER/PAINT*		Restoring surface finish
 HAND GLAZE*		Restoring surface finish
 SANDABLE PRIMER*		Texture restoration-paint pen or plastic wrap method
 COLOR MATCHED TWO-PART POLYURETHANE PAINT*		Texture restoration-paint pen or plastic wrap method
 TWO-PART SPOT FILLER*		Repair shallow scratches and pin holes
 GLASS-FILLED, LOW-SHRINK POLYESTER FILLER*		Repair deep depressions
 ACETONE OR COMPARABLE SOLVENT*		Degrease and clean tools
 ACRYLIC SEALER*		Plastic wrap texture restoration method

## GENERAL SUPPLIES

- Cellophane film
- Plastic wrap (for plastic wrap texturing method)
- Sanding discs - silicon carbide, grits from 60 through 320
- 80, 120, 220, 320, 400, 600, 800, 1000 grit sandpapers
- Buffing (cutting pads), polishing pads, and polishing 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)

## EQUIPMENT

- Dual action sander
- Die-grinder with disk sander
- Air compressor
- Two spray guns
- Buffer
- Bench-type work surface

# BEFORE YOU BEGIN

## ASSES DAMAGE AND PREP AREA

NOBLE CLASSIC | NOBLE SELECT | FILON

### Assessing the Damage

This guide, will outline various methods of repairs, depending on the severity of the damage. Before you begin, you will need to identify the complete area that will require a repair. This will include areas surrounding the damaged area that may discolored or been slightly affected.

### 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, careful not to leave the lacquer thinner in one spot too long. Radius edge areas to be repaired should remain in the curved position both during and after the repair.

# REPAIR TECHNIQUES FOR:

## HIGH GLOSS AUTOMOTIVE LOOK GEL-COAT FINISH

NOBLE CLASSIC | NOBLE SELECT

### Minor Scratch Repair Procedures

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. Be sure that the paint is applied into the groove of the scratch.  
**NOTE: 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" around the scratch.
4. Begin final sanding with 400 grit sandpaper.
5. Buff with buffing compound to remove any fine sandpaper scratches.
6. Begin final buffing with a clean buffer pad; use a 50/50 combination of buffing compound/glazing compound to restore the gloss of the original gel-coat.

### Major Scratches and Gouges Repair Procedure THROUGH GEL-COAT INTO LAMINATE

1. Be sure that the repair area is clean and the scratch or gouge is free of debris. Wipe thoroughly with acetone.
2. Catalyze the polyester resin as directed by manufacturer. Mix 2% catalyst by weight to gel. Overfill the scratch or gouge with gel-coat to account for normal shrinkage. Allow gel-coat to completely set up.
3. Begin initial sanding with 220 grit sandpaper.
4. Begin final sanding with 400 grit sandpaper.
5. Buff with buffing compound to remove any fine sandpaper scratches.
6. Begin final buffing by using a clean pad; use a 50/50 combination of rubbing/glazing compound to restore the gloss of the original gel-coat.

### Repairing Cracks, Air Voids, or Major Impact Damage

1. Using a cutting tool such as a die grinder, cut a rectangular or square area around the damaged area.
2. Cut down through the gel-coat and the laminate. Do not cut through the lauan plywood backer. Remove the gel-coat/laminate layer from the plywood backer by using a putty knife to pry it off.
3. 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 1/2" at a 45 degree angle.
4. Be 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 debris from the repair area.
5. Using 1 1/2 oz. fiberglass mat cloth, 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 three layers of 1 1/2 oz. mat.
6. Catalyze the polyester resin as directed by the 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 saturated. Continue adding layers of mat in the same manner.
7. Once all three layers of mat are saturated, use a small roller to roll out any air bubbles.
8. Allow the polyester resin to reach peak curing temperature and begin cooling down. Once the resin is no longer tacky, begin sanding the fiberglass repair area using 40 grit sandpaper. Sand off the excess polyester resin and fiberglass.
9. 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.

10. Use 220 grit sandpaper to do the final repair sanding. Sand an area about 3" to 4" around the repair. Wipe the repair area with clean acetone to remove any dust.
11. Mask off the area around the repair.
12. Spray gel-coat onto the repair surface. Spray enough gel-coat to allow for an approximate 20% shrink.
13. Allow at least four hours for the gel-coat to cure. For best results, allow to cure overnight.
14. Wipe the cured gel-coat surface with clean acetone before sanding.
15. Begin the initial sanding with 220 grit sandpaper.
16. Begin the final sanding with 400 grit sandpaper.
17. Buff with a clean buffer pad using buffing compound to remove any fine sandpaper scratches.
18. Begin final buffing by using a clean buffer pad using a 50/50 combination of buffing/glazing compound to buff gel-coat to the gloss level around the repair.

**CAUTION: BE VERY CAREFUL NOT TO GENERATE TOO MUCH HEAT FROM OVER BUFFING. THE NOBLE SELECT WALL HAS AN INNER CORE THAT CONTAINS SMALL MICRO SPHERES, WHICH WHEN OVER HEATED, MAY EXPAND AND SWELL THE CORE.**

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

### CRACKS

Begin by grinding through the gel-coat and the laminate with a 5" grinder and 80 grit sandpaper (DO NOT GRIND THROUGH THE COMPOSITE 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 ½" at a 45 degree 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 ½" at a 45 degree angle.

### REPAIR

1. Using 1½ oz. fiberglass mat, cut the mat to the size of the repair area (including the ½" of taper around the outside edge of the repair area). Use three layers of 1½ oz. mat.
2. Catalyze the polyester resin as directed by the 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 saturated. Continue adding layers of mat in the same manner.
3. Allow the polyester resin to set up (reach peak curing temperature) and begin cooling down. Begin sanding the fiberglass repair area using 40 grit sandpaper. Sand off the excess polyester resin and fiberglass.
4. 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.
5. Use 220 grit sandpaper to do the final repair sanding. Sand an area about 3" to 4" around the repair. Wipe the repair area with clean acetone to remove any dust.
6. Mask off the area around the repair.
7. Spray gel-coat onto the repair surface. Spray enough gel-coat to allow for an approximate 20% shrink.
8. Allow at least four hours for the gel-coat to cure. For best results, allow to cure overnight.
9. Wipe the cured gel-coat surface with clean acetone before sanding.
10. Begin the initial sanding with 220 grit sandpaper.
11. Begin the final sanding with 400 grit sandpaper.
12. Buff with a clean buffer pad using buffing compound to remove any fine sandpaper scratches.
13. Begin final buffing by using a clean buffer pad using a 50/50 combination of buffing/glazing compound to buff gel-coat to the gloss level around the repair.

**CAUTION: BE VERY CAREFUL NOT TO GENERATE TOO MUCH HEAT FROM OVER BUFFING. THE NOBLE SELECT WALL HAS AN INNER CORE THAT CONTAINS SMALL MICRO SPHERES, WHICH WHEN OVER HEATED, MAY EXPAND AND SWELL THE CORE.**

# REPAIR TECHNIQUES FOR: SLIGHTLY TEXTURED FIBERGLASS FILON

## 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.

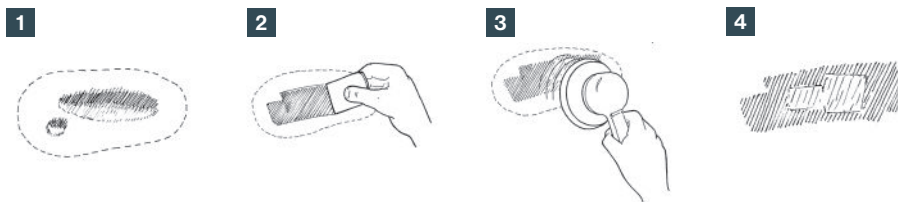
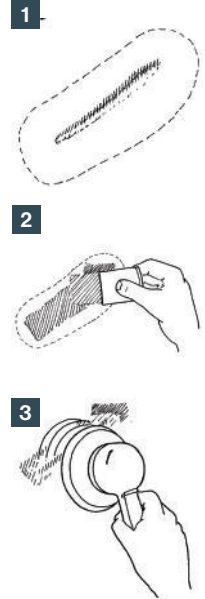
NOTE: FOR DEEPER OR MORE SEVERE DAMAGE, USE STANDARD CONVENTIONAL FIBERGLASS RESIN REPAIR TECHNIQUES, PRIME, AND PAINT. PAINT OR LACQUER GIVE A BETTER FINISH THAN GEL-COAT.

## Shallow Scratch Repair Procedure

1. Sand out the scratch or crack by hand with 120 grit sand-paper. 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.
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: CLEAN SURFACE BEFORE USING THE 120 GRIT SANDPAPER.

## Deep Scratch or Puncture Repair Procedure

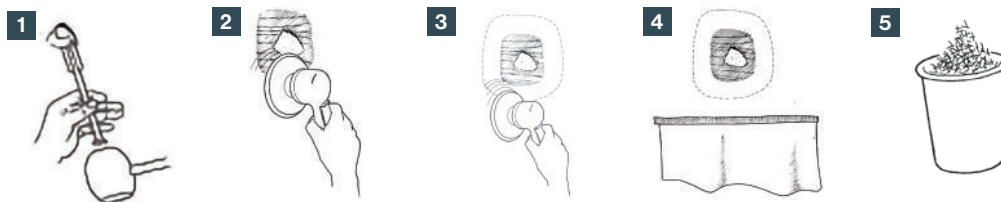
1. With 80 grit sandpaper clean out debris, and make a slight "V", tapered outward. Widen the sanded area 2" to 3" beyond the damaged area. Blow off all dust and wipe the area clean with solvent.
2. Catalyze a quantity of the glass-filled, low shrink polyester filler and press the mix into the depression, 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 solvent.  
TIP: CLEAN SURFACE BEFORE USING THE 120 GRIT SANDPAPER.
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.



## Severe Damaged Repair Procedure

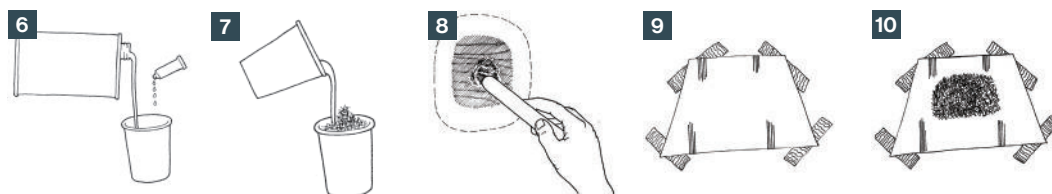
### DEEP GOUGE OR TEAR THROUGH GEL-COAT INTO LAMINATE

1. Use a chisel to dig out all broken pieces of Filon fiberglass 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 to sand away the fiberglass skin. Expose 4" to 6" of lauan backing and remove all traces of bonding adhesive.
4. Blow off dust and wipe the area clean. 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  $\frac{1}{3}$  more for the mat in the mixing cup. 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 does not run.
8. Working quickly, use the 2" paint brush to apply a generous coat of the catalyzed resin. With a 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.

**NOTE: 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 IN EACH DIRECTION (1" DECREASED FROM EACH SIDE OF THE PERIMETER), OR 2" SMALLER PER SIDE THAN THE PREVIOUS LAYER.**

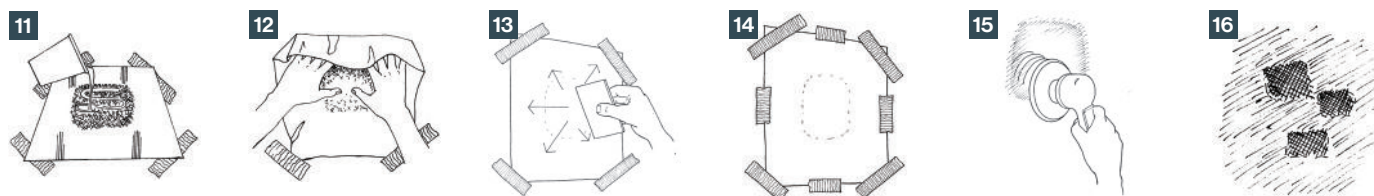


11. Working quickly, pour a generous amount of catalyzed resin onto the mat on the work surface in a fairly even pattern, saturate the entire surface of the mat.
12. Lift the mat/film sandwich up to the repair area, supporting it from underneath, so the mat will not pull away from the film and fall apart. Press the saturated mat/film sandwich, secure with masking tape.
13. Using 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 one corner, lift the film, and pick up the surplus.
14. Work the area with a squeegee until it is flat, and flush with the adjacent surface. Tape the film securely and let the repair cure.

**NOTE: 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. 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: CLEAN SURFACE BEFORE USING THE NEXT GRIT SANDPAPER.**





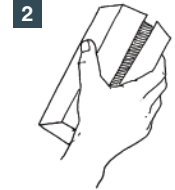
## REPAIR GUIDE FOR EXTERIOR FIBERGLASS SIDEWALLS AND ROOFS

### Paint Pen Texturing Repair Procedure

This method utilizes a sandable primer which produces an orange peel finish. 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.**
2. Hand sand the entire area using a sanding block and 320 grit sandpaper. Feather the edges. Wipe the area with 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 solvent.
5. To simulate the fiber texture, first sharpen the felt tip on the paint pen with a sharp knife.
6. 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 fiberglass 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.
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.

**NOTE: TO AVOID COLOR DISCREPANCIES, 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.**



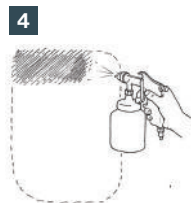
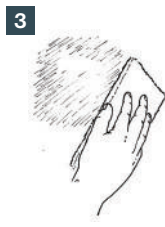
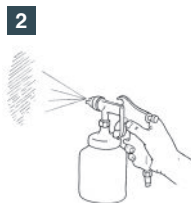
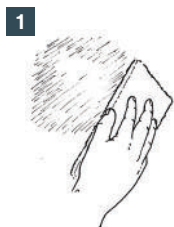
### Paint Wrap Texturing Repair Procedure

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

1. Sand 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.
2. When dry, wet sand with 600 grit sandpaper to eliminate all previous sanding marks. Wipe the area clean with solvent.
3. Spray acrylic sealer on a small section. While it is still wet, dab the area with a crumpled piece of plastic wrap.
4. 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 fiberglass texture look. Let dry.
5. When the area has been completely textured, spray on three 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.**

**NOTE: TO AVOID COLOR DISCREPANCIES, 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.**





## Texturing Tool Repair Procedure

### BEFORE BEGINNING THIS PROCEDURE

- Have texturing tools as described below available.
- Ensure the air supply is equipped with an oil/water trap in working condition or use a disposable filter at the gun.
- Thoroughly clean 1" to 2" beyond repair area with a wax and grease remover prior to beginning the repair.

**NOTE: SILICONE OR OTHER CONTAMINANTS (OFTEN FOUND AROUND WINDOW MOLDINGS) CAN RUIN A REPAIR.**

### PROCEDURE

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.

**NOTE: IF YOU DO NOT HAVE TOOL, SEE FABRICATION OF TEXTURE TOOL.**

1. Mix paint per manufacturers specifications. Combine enough to cover the repair area in two to three coats.  
**NOTE: DIFFERENT BRANDS AND SPRAYING CONDITIONS MAY WARRANT ADJUSTMENT IN THE MIXING RATIO TO ACHIEVE THE DESIRED RESULTS.**
2. Spray a full coat to the prepared surface, extending 2" to 4" beyond the edges of the repair. Avoid excessively heavy coats.
3. Let flash for 30 to 60 seconds. The coat should be wet enough to prevent excessive texturing.
4. Blot texturing tool into the wet surface. There should be a slight resistance when the tool is withdrawn from the surface. Continue until the entire repair surface is textured. Move quickly, as marks or bubbles may appear in the surface as the paint dries. Wipe the texturing tool periodically during use to prevent build-up of dried paint.  
**NOTE: BLOTTING THE TEXTURING TOOL INTO THE CENTER OF THE REPAIR, AND THEN DEPOSITING THE PAINT INTO THE OUTER EDGES WILL PRODUCE A MORE DEFINED TEXTURE ON THE OUTER EDGES.**
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 apply final coat with blender to blend edges (overspray) with the surrounding surfaces.

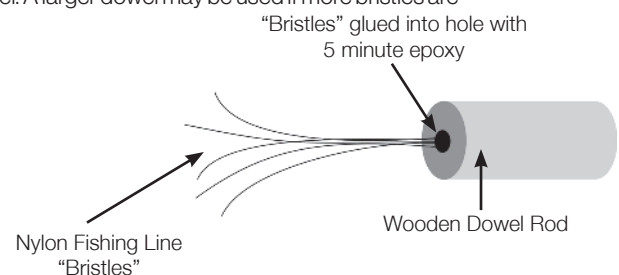
## Texturing Tool Repair Procedure

### MATERIALS

- ½" Diameter Wooden Dowel Rod 2" to 3" Long
- 0.009" Diameter Monofilament Fishing Line
- Five Minute Epoxy

### PROCEDURE

1. Drill hole, approximately ⅛1/8" in diameter, ½" 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 five to six pieces of fishing line into segments approximately 3½" to 4" long. 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. Be sure bristles are arranged outwardly, and well-separated. Work fast as the epoxy hardens very quickly.



### 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.

# REPAIR TECHNIQUES FOR: FILON FLEXROOF REPAIRS

FILON EMBOSSED AND SMOOTH PANELS

### Deep Cracks or Deep Scratches

1. Clean affected area as described in the "Prepping the Area to be Repaired" section.
2. Using an 80 to 220 grit sanding pencil, lightly sand the crack or scratch.
3. Fill the depressions with a flexible two-part spot filler, being careful not to distort the smooth or embossed finish.
4. If shrinkage occurs once the spot filler has dried, the affected area may be re-treated in one of three 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.
5. 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 pinstripping 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. The paint supplier should 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 two 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: COLOR COAT AND FINAL FINISH

## 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 repair.

1. Sand with the 220 grit sandpaper.
2. Use 320 grit to eliminate all sanding marks.
3. 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 solvent.
4. Using the directions on the back of the color matched spray paint, apply several coats of color spray paint to the repaired area.
5. Apply clear after color paint
6. When the lacquer paint is completely dry, power buff the area with buffing compound. Check the buffing progress often to avoid losing the texture.  
**NOTE: IT TAKES LONGER FOR THE CLEAR TO DRY.**
7. Wash and clean the area thoroughly.

**NOTE: IF A PERFECT MATCH IS NOT AVAILABLE, IT IS BETTER TO GET A PAINT THAT IS SLIGHTLY YELLOW. BUFFING WILL HIDE THIS COLOR DIFFERENCE.**

## Filon Gold Finishing Repair Procedure

1. Sand with the 220 grit sandpaper.
2. Use 320 grit to eliminate all sanding marks.
3. 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 solvent.
4. Spray the area with several coats of color matched lacquer, thinned to normal consistency. Be sure to feather the edges of the repaired area with the original finish.
5. Spray the edges of the painted area with slow dry lacquer thinner to eliminate a halo effect.  
**NOTE: OMIT IF USING ENAMEL OR URETHANE BASED PAINTS.**
6. 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.
7. Wash and clean the area thoroughly.

## ADDITIONAL INFORMATION

please visit us at [valtoem.com/RV](https://valtoem.com/RV) for product line information, warranty documents, and technical data sheets.

## TIPS ON THE CARE + MAINTENANCE OF YOUR PANELS?

visit us at [exteriorRVcare.com](https://exteriorRVcare.com) for tips, tricks, and how-to videos

## FOR QUESTIONS OR CONCERNS, PLEASE CONTACT:

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Since 1954, Valto Engineered Materials has provided innovative products and services and is a leading provider of FRP composite panels. Our lightweight composite products deliver unsurpassed strength and durability; and we continue to pioneer next level performance in building materials, recreational vehicles, and transportation.

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