



How to Repair TPO

Thermoplastic Polyolefins

GLOBAL THERMOPLASTIC SOLUTIONS

TPO Repair Guide

For non-painted, painted and high gloss surfaces

Hole and Crack Repair – textured, non-painted surfaces

Use to repair:

- Holes
- Deep scratches or gouges
- Small to medium dents
- Tears

Step 1: Preparation

- Identify the damaged area.
- Thoroughly clean surface with a soft brush and water or gentle cleanser such as Simple Green.
- Ensure all dirt and grim is removed from the valleys of the textured surface.
- After cleaning, ensure surrounding area is free of moisture. You may want to wipe with isopropyl alcohol to ensure dryness.



Step 2: Gather Supplies

- Recommended list of items to complete your repair:
 - Plastic extruder
 - Propane torch with wide tip nozzle
 - Silicon
 - 80 grit sand paper
 - Tape
 - Flat piece of metal or cardboard



Step 3: Make a Silicon Texture Impression

- Using a common silicon is necessary for acquiring the appropriate texture to surface.
- Apply silicon to the textured surface near the damaged area. You are going to make a texture impression to apply to the damaged area once repaired.
- Use a piece of paper to flatten the silicon for quicker drying time.



Step 4: Repair of Extreme Damage with Molten Plastic

- If damage is severe, fill area with molten extruded plastic.
- If just severely scratched, this is not required. Skip to Step 5.
- Use the flat piece of cardboard or metal to support the underside of the damaged area.
- Allow at least 30 minutes of cure time before proceeding to the next step.



Step 5: Sanding

- Sand the area thoroughly with the 80 grit sandpaper.
- Damage to the surrounding surface is tolerable as this repair will also restore the outer areas that you have sanded.
- Once sanded smooth, clean up the area with water or isopropyl alcohol to remove all loose shavings.
- Blow of any remaining dust with an air compressor if you can.



Step 6: Apply Texture to Damaged Area

- Ensure the silicon is completely dry from step 3.
- Use a torch to heat the repaired surface. Keep torch 5-8 inches from sanded area.
- Once surface has become shiny from the heat, place silicon imprint onto the surface.
- Press firmly to transfer grain properly (check print for matching grain direction properly).
- This may take two or three attempts to acquire the appropriate texture and appearance. If surface does not match properly, reheat the surrounding area again and quench it with water.



Hole and Crack Repair – Painted Surfaces

Use to repair:

- Holes
- Deep scratches or gouges
- Small to medium dents
- Tears

Step 1: Preparation

- Identify area to be repaired.
- Thoroughly clean with water or a standard cleaner, like Simple Green.



Step 2: Sanding

- Sand area surrounding damaged area using a sander and 180 grit disc.
- Sand outer edges of repair area to round off any sharp edges.
- After sanding, wipe with a clean, dry rag and blow off any dust with compressed air.



Step 3: Apply Patch Material

- Apply 3M Automix Polyolefin Adhesion Promoter (5907) following the 3M label directions.
- After the promoter dries, apply the 3M Automix EZ Sand Flexible Parts Repair (5887) following the 3M label directions.



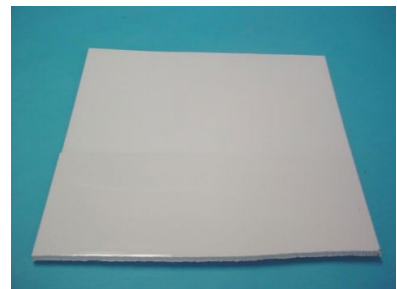
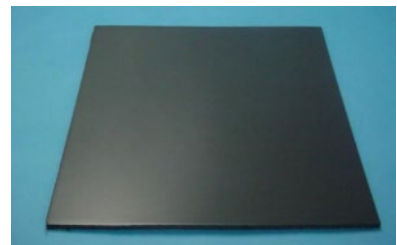
Step 4: Sanding

- After the patch has cured properly, sand with 180 grit sandpaper, followed by 240 grit, the 400 grit until the damaged surface is level.
- Apply Red Spot 499S Adhesion Promoter or NB Coating HP-21054-HSRG Adhesion Promoter.
- The repaired area is now ready for painting.



Step 5: Painting

- Prime part (part in photo primed with DuPont IMRON 2K Flexible Gray Primer (373-P-23290)).
- Paint part with desired paint (part in photo painted with PPG Concept DCC Acrylic Urethane White).
- Note: when using this repair method, you must paint the entire panel or part that is damaged unless there is a molding or body line that will allow mask lines to be hidden.



Repair of Minor Scuffs and Scratches on High Gloss TPO

Use to repair:

- Minor scuffing and scratches
- High gloss TPO surfaces

Step 1: Clean the Surface

- Clean surface with soap and water to remove dust, grime, dirt or grease.



Step 2: Sanding

For minor scuffing:

- Lightly polish the area in a circular motion with 3M 281Q Polishing Paper.

For minor scratches:

- Lightly sand area with 3M 600/800 grit wet/dry sandpaper. This should visibly reduce most of the scratch.
- Lightly sand with 3M 1500/2000 grit polishing paper. This should visibly reduce the rest of the scratch.
- Lightly polish the area in a circular motion with 3M 281Q Polishing Paper.

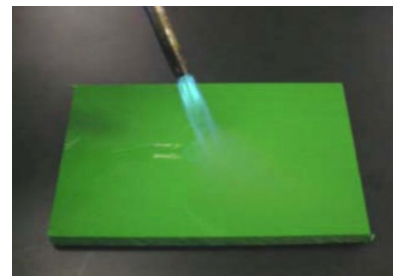


Step 3: Wash Surface

- Wash sanded surface with mild soapy water or isopropyl alcohol.

Step 4: Apply Torch to Surface

- Apply localized heat with a hand-held propane torch.
 - Be sure to keep flame in constant motion over sanded area.
 - Be careful not to apply heat too close to surface as this will degrade and damage the surface. Hazing can occur in areas of overheating.
- Continue applying heat to area until surface briefly appears "wet". This indicates the surface was momentarily melted and recovered.



Step 5: Finishing Spray

- Slight hazing may occur on dark colored samples. If this happens, apply a light coating of 210 plastic cleaner/polish by Armada Coatings.
- With a clean, soft cloth, wipe and buff dry to acquire a clean, bright, lustrous finish.



The information provided is for general use and should be verified with your particular adhesive vendor. Specific application requirement must be considered individually to ensure bonding performance.



CUSTOM EXTRUSION SOLUTIONS

TPO | ABS | Acrylic | ASA | PC/ABS | Soft-touch

SIMONA PMC | +1 877 289 7626 | info@simona-pmc.com | www.simona-pmc.com



LIMITED WARRANTY, WARRANTY DISCLAIMERS AND LIMITATIONS OF REMEDIES AND LIABILITIES.

Before using a SIMONA PMC product, customers and other users should make their own independent determination that the product is suitable for the intended use. They should also ensure that they can use the SIMONA PMC product safely and legally. This document does not constitute a warranty, express or implied, including a warranty of merchantability or fitness for a particular purpose.

In addition, no immunity under SIMONA PMC or third parties' intellectual property rights shall be implied from this document. No one is authorized to make any warranties, issue any immunities or assume any liabilities on behalf of SIMONA PMC except in a writing signed by an authorized SIMONA PMC employee. Unless otherwise agreed in writing, the exclusive remedy for all claims is replacement of the product or refund of the purchase price at SIMONA PMC's option, and in no event shall SIMONA PMC be liable for special, consequential, incidental, punitive or exemplary damages.