



# PATCH INSTALLATION INSTRUCTIONS

## BEFORE YOU BEGIN:

1. We highly recommend you use a heat gun to warm up the patch. If using an oven, please see our FAQ on the subject on the back of this paper.
2. While the patch can be cut either hard or soft, we recommend pre-cutting the patch with heavy-duty scissors or tin snips before heating, as once the patch is heated, it will begin to harden up quickly.
3. Our patch adhesive makes a strong bond as it is, but if you are concerned that your product is difficult to adhere to, apply [3M™ Tape Primer 94](#) to the surface to increase the bond between the patch and surface.
4. To repair low-density polyethylene, we recommend polarizing the surface. For instructions see back page or visit our FAQ section at [patchnrepair.com/how-it-works](http://patchnrepair.com/how-it-works)

## 1 PREPARE THE SURFACE

To start, rough the surface using a medium grit sandpaper and then thoroughly clean the area with isopropyl alcohol. Cut patch to size, leaving at least 1" of overlap on undamaged surfaces. Pre-peel a corner of the adhesive to make removing the film backing easier while wearing gloves. For a smoother transition between the patch and surface, cut the edges of the patch at a 45° angle with a razor knife before installation.

## 3 APPLY TO SURFACE

With the adhesive side facing the repair surface, form the flexible portion of the patch over the damaged area. Work from the center out and apply pressure to shape it and press it into the contours of the repair surface. Continue pressing and shaping until it cools and becomes rigid again. Peel back more of the adhesive film and use the heat gun to heat the next section of patch and repeat the process. The patch can be reheated as many times as needed, so if the patch becomes too rigid, reapply more heat.

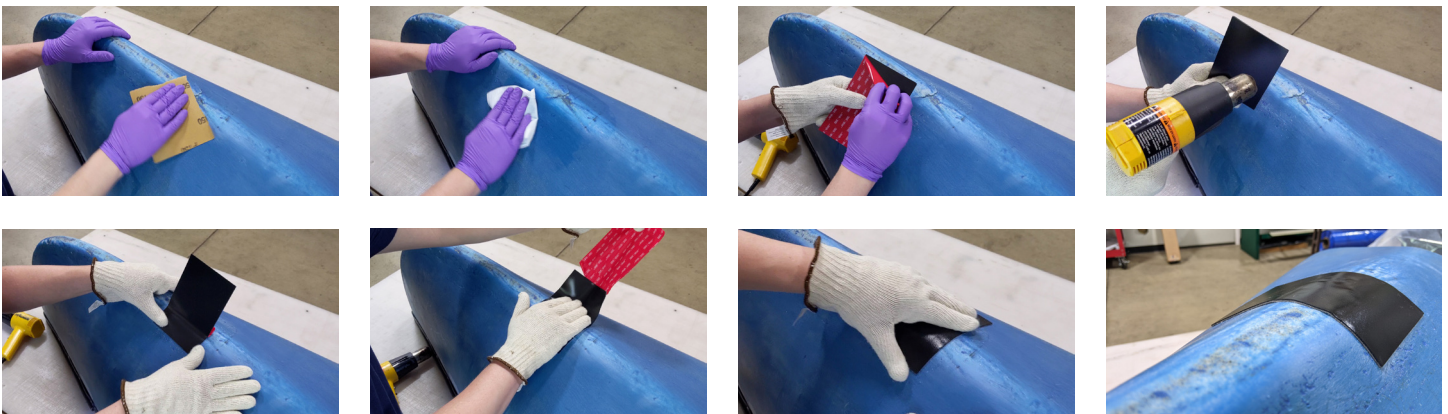
## 2 HEAT THE PATCH

Remove a portion of the film backing exposing the adhesive, being careful not to touch the adhesive. Heat the area of the patch on the other side of where the film was removed by moving the heat gun back and forth across the surface until it becomes pliable, around 225°F (107°C). Be careful not to overheat the patch. If the surface begins to bubble, it is too hot.

## 4 COMPLETE THE REPAIR

Once the patch is fully secured to the surface, allow the patch to cool and return to its rigid state. Cooling time depends on the temperature of the damaged surface and on ambient air temperature, but normally the patch cools in a minute or two.

Optionally, you can apply a silicone sealant around the edges of the patch to make a smooth transition between the repaired surface and the patch. You can also paint the patch to match the existing surface.





# FREQUENTLY ASKED QUESTIONS



## Q - WHAT SIZE PATCH DO I NEED?

A - We recommend a patch that will cover the damaged area and leave a minimum of 1" of surface area on each side of the damage. This will allow for good adhesion and ensure a watertight seal

## Q - CAN I CUT THE PATCH?

A - Yes, most Patch N' Repair standard sizes will be larger than what you need. Patches can be cut cold or when warm/flexible and can be cut with heavy-duty scissors or tin snips.

## Q - HOW HOT DO I NEED TO HEAT THE PATCH?

A - Heat the patch until it becomes flexible. This will let you know it has reached the desired temperature of 225°F. DO NOT exceed 325°F. If the patch begins to bubble & scorch, it is too hot.

## Q - DO PATCHES WORK ON LOW-DENSITY POLYETHYLENE?

A - Yes, we recommend you polarize the surface before applying the repair patch. To polarize, you must first be sure the area is roughened with sand paper and clean. You will need a hand-held propane torch. Inside the flame will be a smaller, brighter blue flame. This smaller blue flame must contact the hull in the area to be bonded. Simply wave the flame across the hull like you were painting it. DO NOT MELT OR BURN THE SURFACE. What is important is having the gases given off in the bright blue part of the flame oxidize the surface to be repaired. Do not touch the area with your bare hands after polarizing as oils from your skin will negate the process

## Q - ARE THE PATCHES REMOVABLE?

A - Yes patches are removable, but you cannot use the same patch once applied. To remove, wait until the patch is cool, begin at one corner with a putty knife and work up the edge, being careful not to scratch the surface. Some of the repaired surface may remain stuck to the adhesive.

## Q - CAN I USE ADDITIONAL SEALER?

A - Yes but DO NOT apply any sealer directly to the adhesive. When the patch is completely cooled, you can apply sealer around the edges of the patch.

## Q - HOW CAN I HEAT THE PATCH?

A - Heating methods include: MRE-style heater (included in emergency repair kits), non-food oven, or a heat gun. We recommend using a heat gun when possible. When using a heat gun, do not place the heat gun too close to the patch surface or hold heat in one place for more than a few seconds to avoid burning. DO NOT heat above 325°F.

## Q - HOW DO I HEAT THE PATCH USING AN OVEN?

A - With the adhesive film peeled off, place the patch facing down (adhesive up) on the center rack on a flat baking sheet in a preheated oven at 300°F for 10 minutes. Once heated and pliable, pick up the patch with a spatula or tongs and then carefully place it onto the repair area without touching the adhesive. Then apply pressure in the middle of the patch and work it to the outer edges, working out any bubbles, until the whole patch is secured. You'll need to move quickly as the patch will return to its rigid state in a minute or two.

## Q - DO I PUT THE PATCH ON THE OUTSIDE OR INSIDE OF THE ITEM BEING REPAIRED?

A - We recommend applying the patch on the outside. This prevents water from reaching the adhesive backing. For maximum protection, apply the patch on BOTH the inside and outside.

## Q - CAN I OVERLAP TWO PATCHES TO COVER A LONG CRACK?

A - Yes, but to maintain a watertight seal, you need to ensure that the top piece of materials is completely formed to the contours of the bottom piece.

## Q - ONCE HEATED, HOW LONG DOES THE PATCH STAY FLEXIBLE?

A - Time will vary depending on ambient air temperature. In temperatures 40°F to 70°F, the patch stays flexible for about one minute. You can reheat the patch as many times as needed.

## Q - IS THE PATCH WATERPROOF?

A - Yes, water will not soak through the patch.

Note: Do not heat with a direct flame or contact the patch directly with a heating surface that is over 270 °F (132 °C). Do not store in direct sunlight. Not for use on pressurized tanks or lines. Avoid contact of the adhesive with skin. Removal may damage painted and gel-coated surfaces. Not warranted for any specific application. Any warranty contained in this section is exclusive and in lieu of all other representations and warranties, express or implied, and Spintech Holdings, Inc. ("Seller") expressly disclaims and excludes any implied warranty of merchantability or implied warranty of fitness for a particular purpose. Any and all statements, technical information, and recommendations provided by seller to buyer are based on tests believed to be reliable at the time of purchase, but the accuracy or completeness thereof is not guaranteed. Seller's and manufacturer's only obligations shall be to replace such quantity if the product proved to be defective. Before using Buyer shall determine the suitability of the product for its intended use and buyer assumes all risk and liability whatsoever in connection therewith. In no event is any such suggestion or information to be considered or represented to be a recommendation or a final or preliminary engineering or other design. EXCEPT FOR SUCH EXPRESS WRITTEN WARRANTY, IF ANY, AS SPINTECH HOLDINGS, INC. MAY ISSUE TO THE PURCHASER, SPINTECH HOLDINGS, INC. MAKES NO WARRANTY, EXPRESS OR IMPLIED, WITH RESPECT TO ANY PRODUCT, INCLUDING, BUT NOT BY WAY OF LIMITATION, THE MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OF SUCH PRODUCT. Seller shall have no obligations or liability whether on account or negligence or otherwise except other than as provided herein. Neither seller nor manufacturer shall be liable either in tort or in contract for any loss or damage, direct, incidental, or consequential arising out of the use or inability to use the product. The purchaser assumes sole and full responsibility for being familiar with all characteristics of all products and for determining and satisfying itself as to the content of all products and the suitability of all products for the uses and applications contemplated by the purchaser and others, as well as for complying with all laws, regulations and standards applicable to the possession, handling, processing, and use of all products.