
PILOT WIRE PATCH PLUG (PWPP)

Application Guidelines



PILOT WIRE PATCH PLUG (PWPP) Application Guidelines



Do a thorough Internal and External Inspection of Tire. This is to ensure the size of the injury and whether the tire can be repaired. Use proper lighting for inspection.



PILOT WIRE PATCH PLUG (PWPP) Application Guidelines



Remove the foreign material from the injury using a probe and using an inspection tool, determine the size and angle of the injury.

The size and the angle of the injury is very important to select and do the appropriate repair.

If the angle of injury is more than 25°, then ONLY a '2 Piece Repair' is to be done.



PILOT WIRE PATCH PLUG (PWPP) Application Guidelines



Use Kwik Klean or any tire pre-buff cleaner or rubber solvents to clean the tire.

While the area is still moist, use a tire scrapper to remove all traces of dirt and silicone tire mold lubricant from the inner-liner area.

This is to be repeated 2 or 3 times to completely remove all traces of mold lubricant for the inner surface of the tire.

If traces of silicone tire mold lubricant is not completely removed, then the repair may fail.



PILOT WIRE PATCH PLUG (PWPP) Application Guidelines



Use a Low Speed Drill (max 1200 rpm) and an appropriate size carbide cutter to prepare the injury.

Drill the injury both from inside and outside.

Repeat this for about 3 or 4 times to remove all the dirt and to clear the injury.



PILOT WIRE PATCH PLUG (PWPP) Application Guidelines



Using a relevant template or the patch as reference, outline the area with a marker.

The marked area should be $\frac{1}{4}$ " or 6 mm wider all around, than the patch size.



PILOT WIRE PATCH PLUG (PWPP) Application Guidelines



Buff the inner liner with white Corundum Grinding Wheel or a Cup Rasp of 36 Grit.

Ensure that the bladder impressions are totally buffed off.

The projected plug should be evenly buffed to the level with the buffed inner tire surface.

The buffed texture should be of RMA1 / BT1 (see reference)



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RMA1 / BT 1



RMA2 / BT 2

RMA1/BT1 : Smooth, velvet- like texture appropriate for inside tire surfaces repairs.

RMA2/BT2 : Smooth, velvet- like texture appropriate for inside tire heat cure repairs and retreading.



After rasping the area, clean the buffed dust with a nylon brush or vacuum the dust thoroughly.

Do not use compressed air to clean the buffing dust as this may contaminate the rasped area.

PILOT WIRE PATCH PLUG (PWPP) Application Guidelines



Apply a thin coat of the of Fast Dry Cement or CVF in the injury channel using a Spiral Cementing Tool.



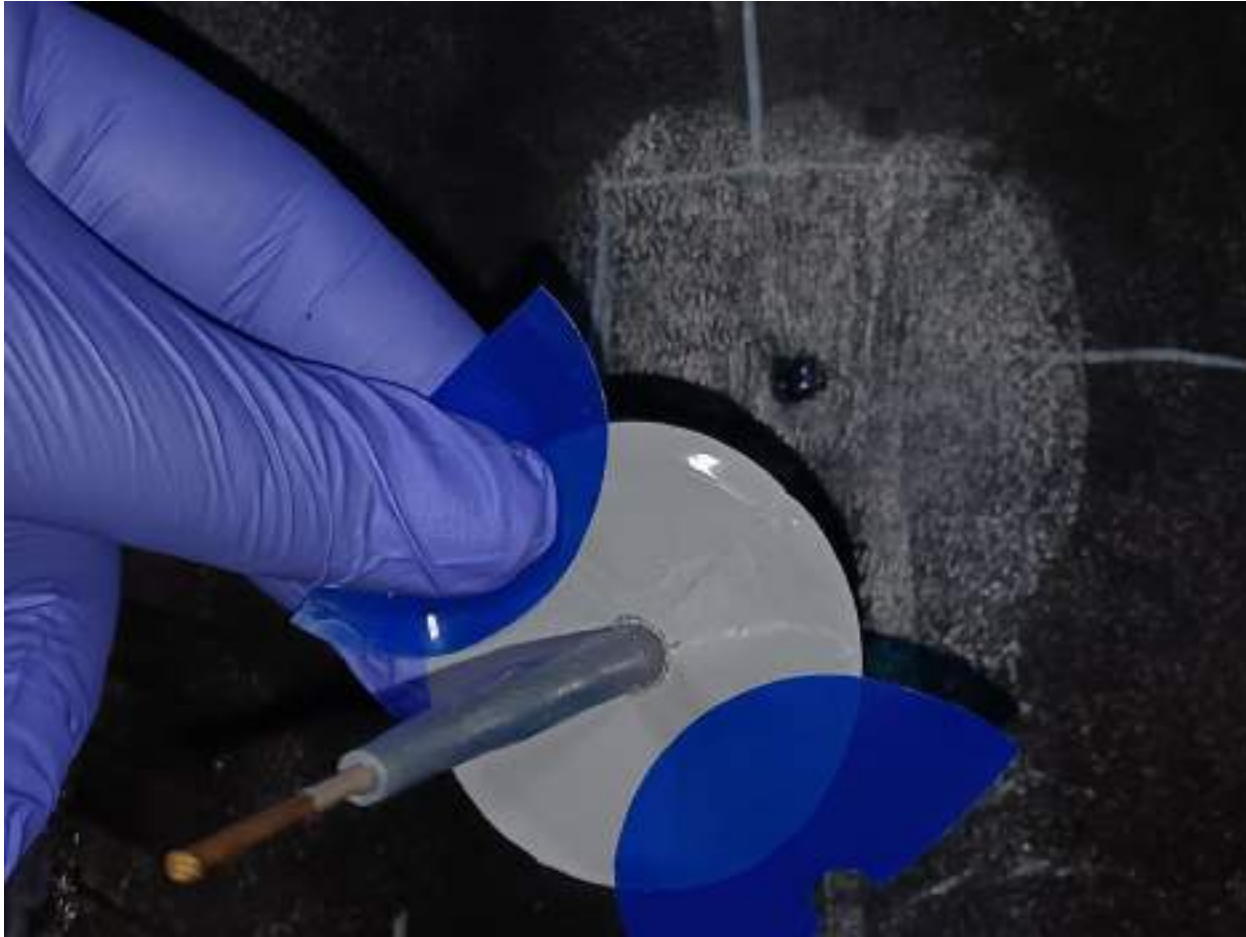
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Apply a Single Coat of Fast Dry Cement or CVF in a stippling motion and allow it to dry. (Normal drying time is 3 to 5 mins. or as per the ambient temperature and humidity).



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Remove the Poly film without touching the cushioned surface



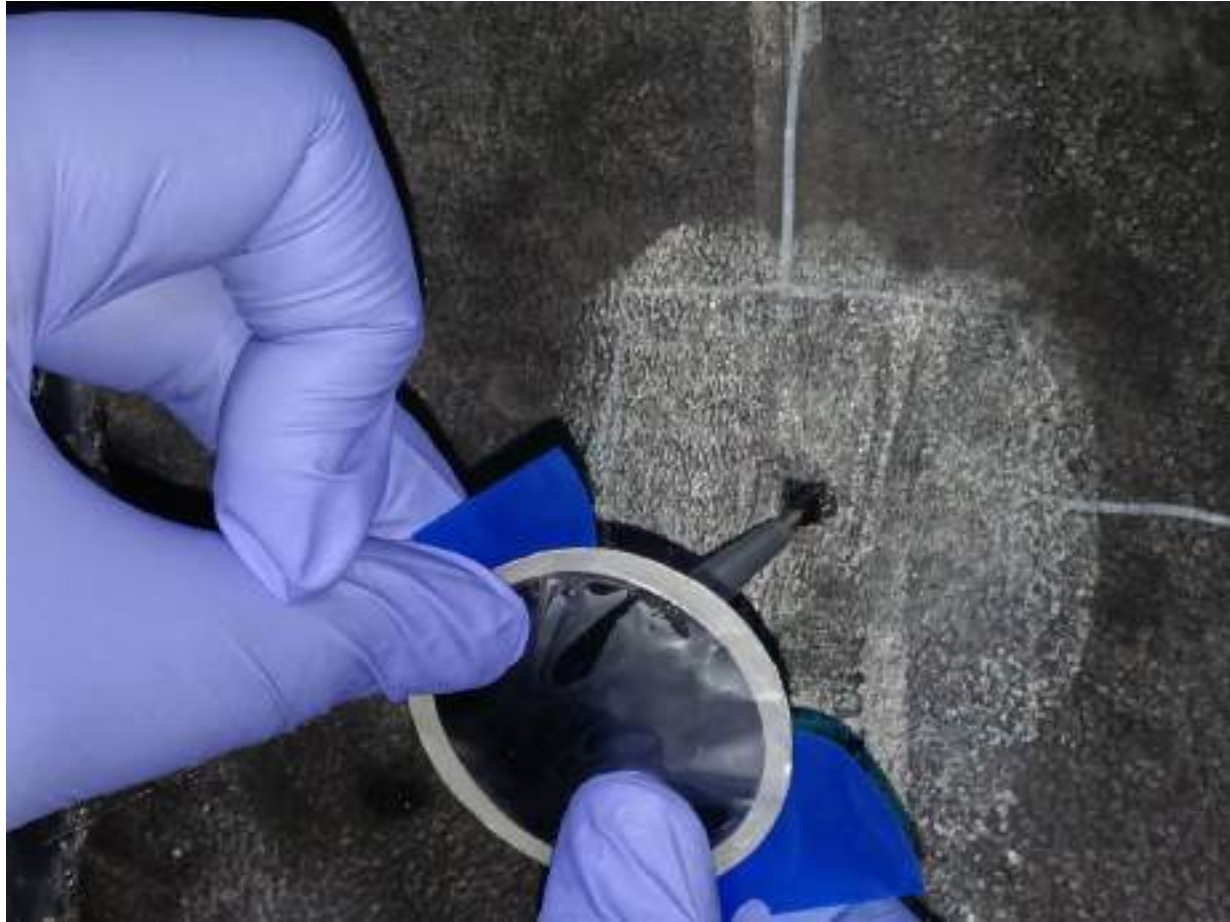
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Apply one thin coat of Fast Dry Cement or CVF on the stem of the PWPP. This will act as a lubricant when the plug is pulled through the injury channel



PILOT WIRE PATCH PLUG (PWPP) Application Guidelines



**Guide the PWPP into the injury using the guide wire. Once it is positioned in the injury remove the poly film.
Ensure that the cushioned surface is not touched.**



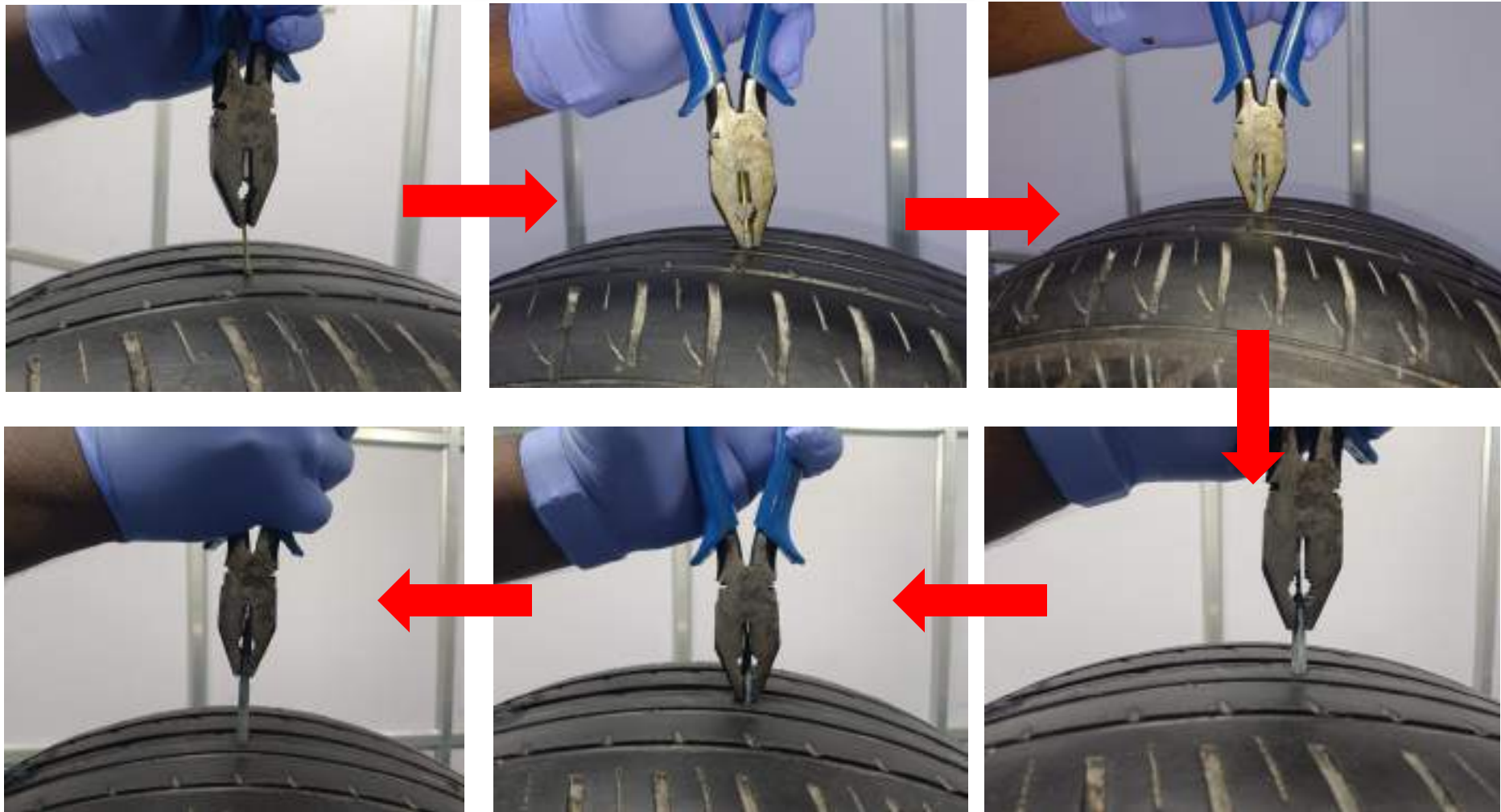
PILOT WIRE PATCH PLUG (PWPP) Application Guidelines



Hold and pull out the protruded guide wire as shown in the image



PILOT WIRE PATCH PLUG (PWPP) Application Guidelines



Pull the Stem Plug slowly outward as per the steps shown in the above image. Always hold the rubbered part of the stem while pulling.

- Ensure that the PWPP is gripped firmly **ONLY** on the rubber part of the stem.
- Always grip the stem of PWPP close to the Tire surface when pulling outwards.
- Pull the PWPP step by step outward (as shown in the previous slide) till the base of PWPP comes into contact with the inner surface of the Tire and a slight dimple is formed on the domed surface.
- **DO NOT PULL THE STEM OF THE PWPP OUTWARD IN ONE FULL MOTION.**(This may result in the breakage of the stem)



PILOT WIRE PATCH PLUG (PWPP) Application Guidelines



Stitch the patch from the center to either sides vigorously using a serrated hand Sticher.

This is to ensure that there are no air trapped in between the patch and Tire.

Repeat this again in the opposite direction.



PILOT WIRE PATCH PLUG (PWPP) Application Guidelines



- Always Pull the PWPP in 90° to the Tire surface.(As shown in the first image)
- DO NOT PULL THE PWPP AT AN ANGLE AS THIS WILL RESULT IN BREAKAGE OF THE STEM FROM THE BASE OF PWPP.**

PILOT WIRE PATCH PLUG (PWPP) Application Guidelines



Trim off the excess Stem protruding on the Outside of the tire leaving about 3mm above the tread surface.



PILOT WIRE PATCH PLUG (PWPP) Application Guidelines



Apply a coat of Kwik Repair Sealer or any Inner liner sealer around the patch and entire exposed buffed area.

This is to improve the integrity to the liner of the tire.



Important Points to be Observed while Repairing Tire :

1. It is important to inspect the tire, both internal and external to determine if the tire can be repaired.
2. Check for run flat or weathering cracks of the Tire. It is not recommended to repair tires with run flat or weathering cracks.
3. See that the repairable injury is **ONLY ON THE TREAD AREA.**
4. Avoid inverting and excessive spreading of the beads in Radial Tires while inspecting.
5. **If the angle of injury is more than 25°, only a 2 piece repair procedure to be done.**
6. Use only the proper size of carbide cutter to prepare the injuries.
7. The marked area to be buffed, should be wider by ¼” or 6 mm all around the patch.
8. While rasping the injury be careful not to buff too deep and expose the tire cords.



Important Points to be Observed while Repairing Tire :

9. **Do not use compressed air to clean the buffed area.** Preferably use a vacuum cleaner to clean the buffed area
10. Use a stippling motion to coat the cement. **Do not use compressed air or hair dryer to dry the cement.**
11. While drying keep the injury of the tire at 12 o'clock position. This will avoid any contamination to the repair area.
12. When the patch is applied ensure that the bead is in the normal position (not spread).
13. Ensure that only the rubber part of the stem is gripped close to the Tire surface when the PWPP is pulled outward.
14. Remount the tire and check for leaks before the Tire is put into use.



THANK YOU

