



# Patch Application Guidelines VERSA PATCH



Kwik Patch Pvt., Ltd.,

# The Consumables for a Patch Repair



Kwik Patch Pvt., Ltd.,

# TYRE PATCH REPAIR – VERSA PATCH



- It is important to inspect the Tire thoroughly from both Internally and Externally ,to access the severity of the injury.
- Always use proper lighting while inspection.
- Do Not Repair if the tire has a Run Flat or if Tire cord or Steel belt is exposed or if the damage is on the shoulder area.

# TYRE PATCH REPAIR – VERSA PATCH



**Bolt Injury through the  
tire**



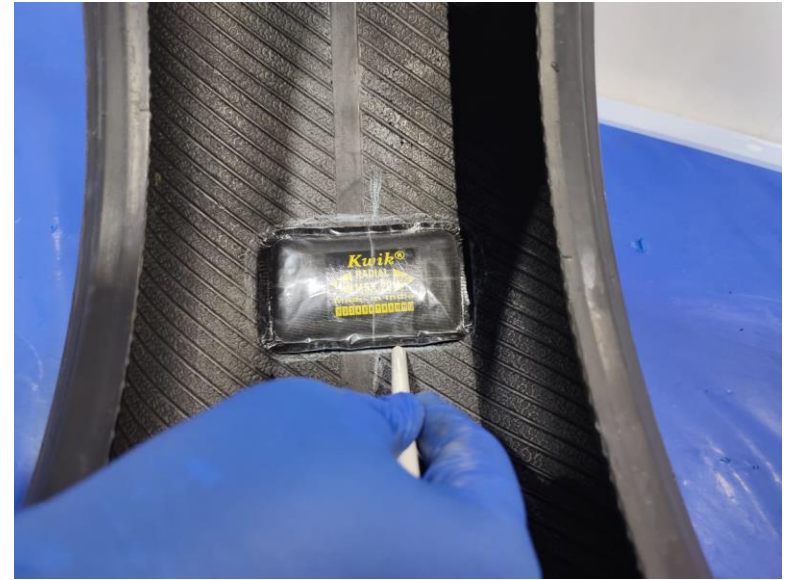
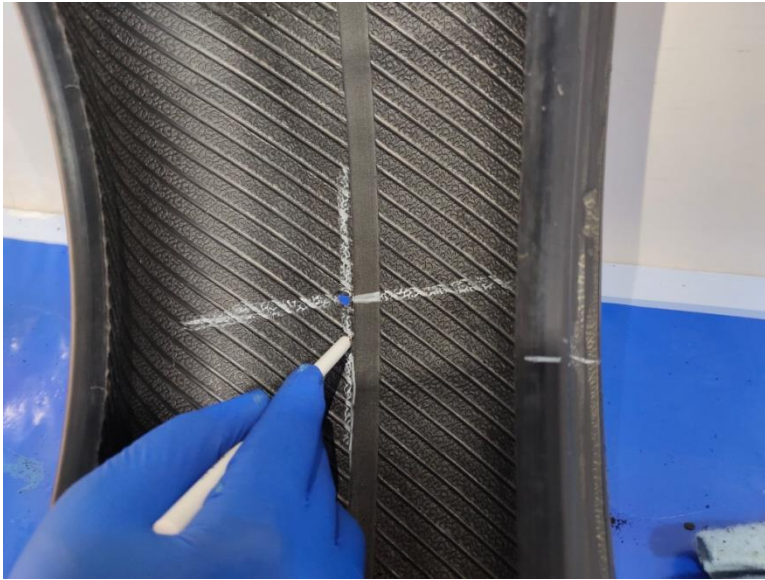
- **Use a Plier or a Nail Puller to remove the foreign material (Bolt) from the tire.**

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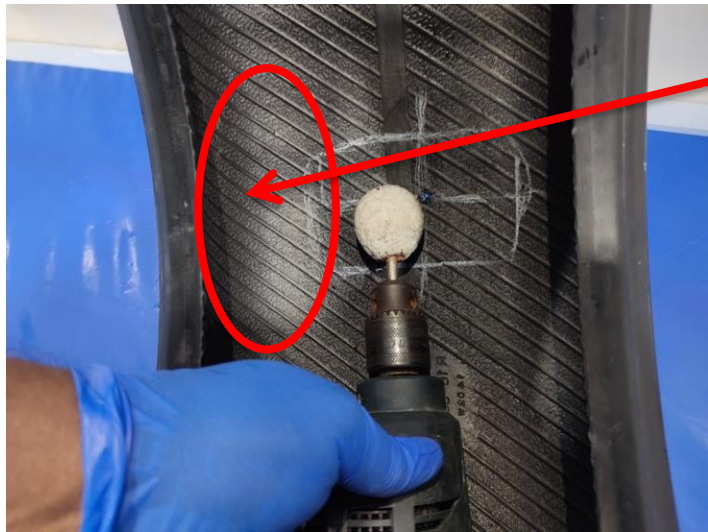
- **Mark the injury. Clean the injured area inside the tire, using Kwik Klean and a Tire scrapper.**
- **Scrap the inner surface around the injury thoroughly a few times.**
- **This is to ensure the removal of all traces of tire inner-liner lube and dirt.**

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- From the center of the injury, mark two line at 90°. This is for centering the Patch. (as shown in the figure)
- Align and center the patch along the marked line so that the injury is aligned to the center of the patch. Make sure that the Bead Arrow is pointing towards the bead.
- Using a Tire Crayon or marking pencil, outline the area ½” larger than the patch. This is for facilitating buffing area.

# TYRE PATCH REPAIR – VERSA PATCH



Bladder  
Vent line  
Impression



- Using a 2500 rpm low speed buffing rasp, buff the outlined inner liner area to a RMA 1 buffing texture. Ensure that the bladder vent lines are completely removed.
- Be careful not the buff through the inner liner.

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**RMA 1/BT 1**



**RMA 2/ BT 2**

**REFERENCE IMAGES**

- **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.



# TYRE PATCH REPAIR – VERSA PATCH



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

# TYRE PATCH REPAIR – VERSA PATCH



- Rasp the injury from the outside of the tire using a low speed buffer of around 2500 rpm and with a 36 grit pencil rasp.
- Rasp the mouth of the injury in such a way so as to form a conical shape at the opening (funnel shape). Also using a carbide cutter clean the injury hole thoroughly
- Once the injury is rasped and cleaned, measure its widest point to ascertain the injury size. Using the patch selection chart, select the right size of the patch.

# TYRE PATCH REPAIR – VERSA PATCH



- Apply one coat of Black Vulcanizing Cement (BVC) on the injury from the outside and the inside of the tire. Ensure that the injury hole is also properly cemented.
- Allow 10 to 15 mins for drying of the BVC

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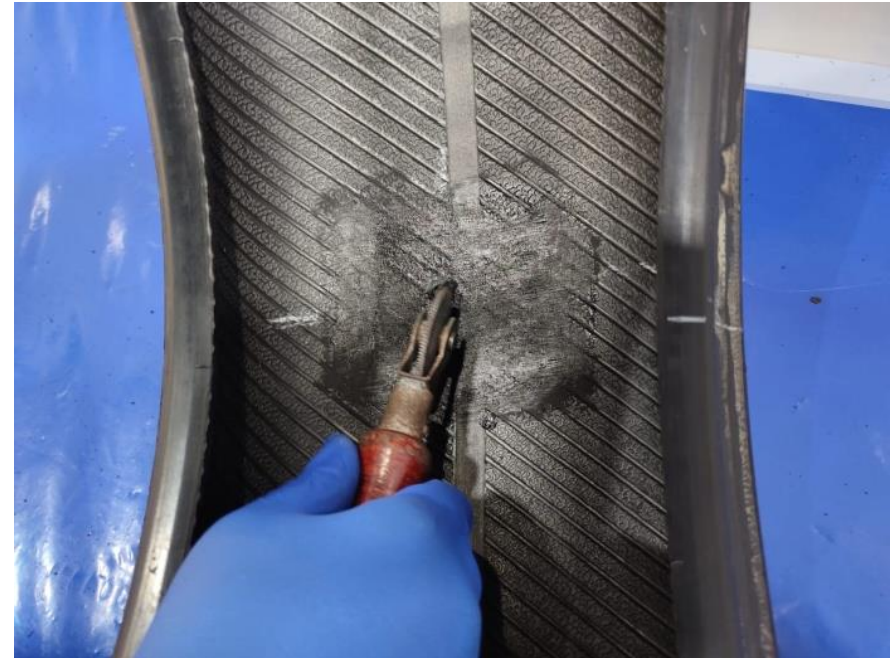
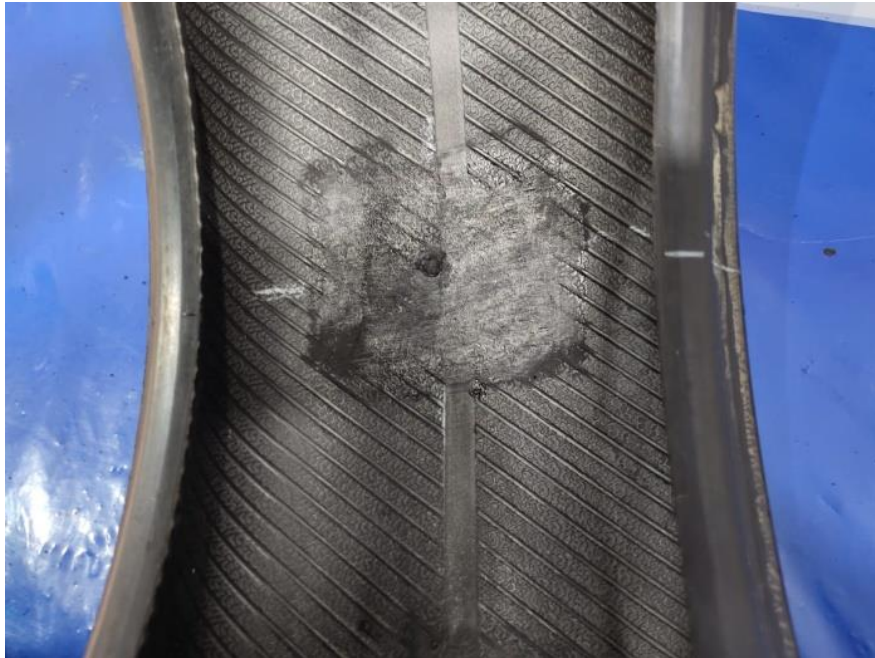
- Peel off the poly film from selected patch and apply a coat of BVC on the cushioned surface of the patch.
- Allow 10 to 15 mins for drying of the BVC

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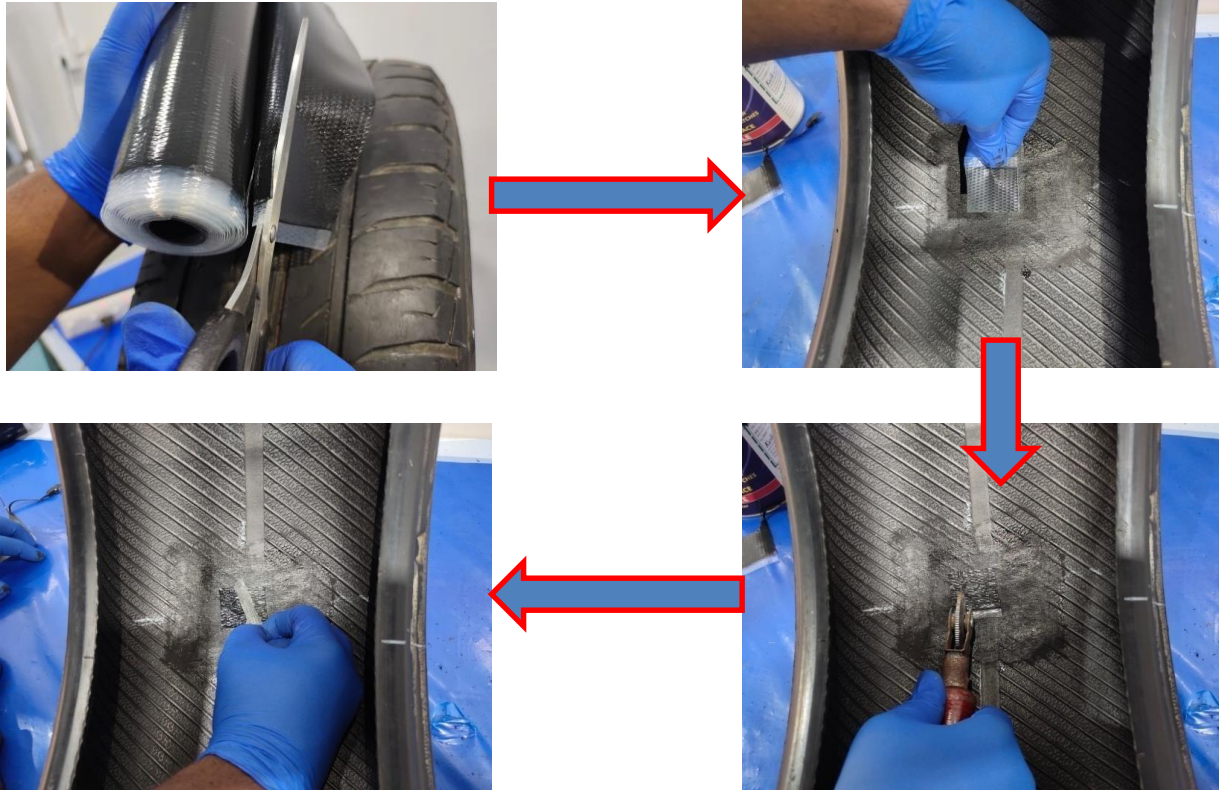
- Once the BVC is dried, fill the injury with strips of Cushion gum from the outside using a temp tool or a flat probe or use an extruder gun with rubber rope.
- Ensure that NO air gets trapped in the filling. Fill the injury so that a part of the gum comes out from the inside.

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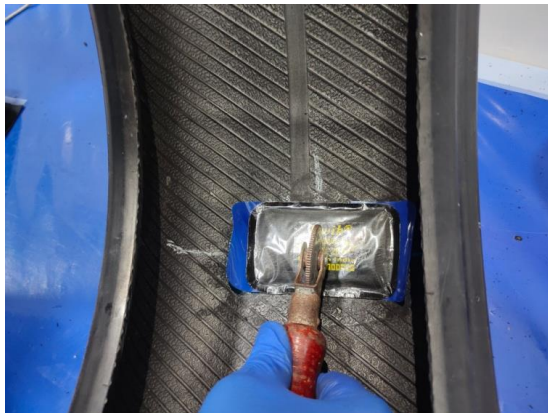
- **Stitch the protruding cushion gum from the inside firmly on to the inside of the tyre using a 3 mm hand sticher.**
- **Ensure that the cushion gum is stitched properly and there is no excess cushion gum forming a mound inside the tyre. (This will result in air trap between the tyre and the patch after application of the patch)**

# TYRE PATCH REPAIR – VERSA PATCH



- Apply a small piece of Cushion Gum at the filled area and stitch the same fully. This is to ensure that no air gets trapped at this area when the patch is applied.
- Ensure that the edges of this piece of cushion gum is stitched properly to the inner tire without any ridges. Remove the poly film

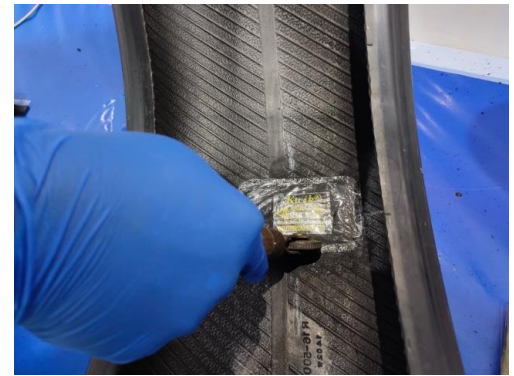
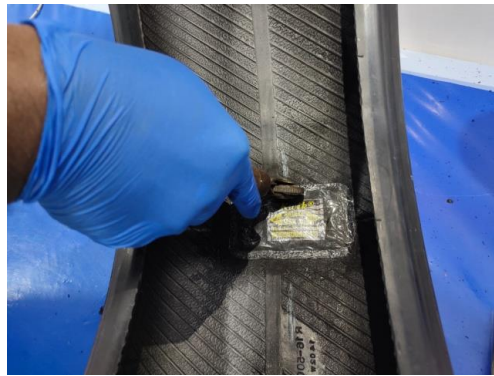
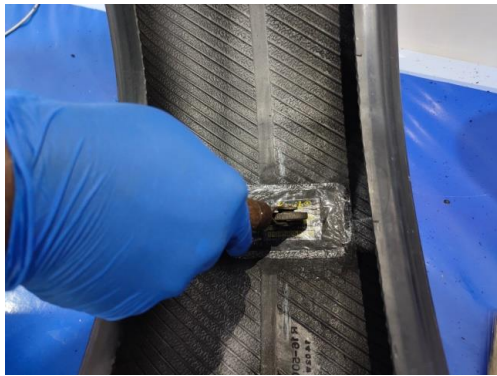
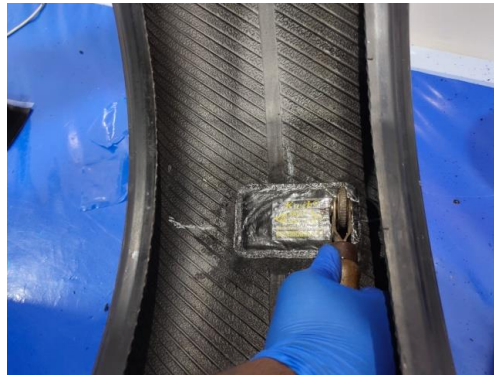
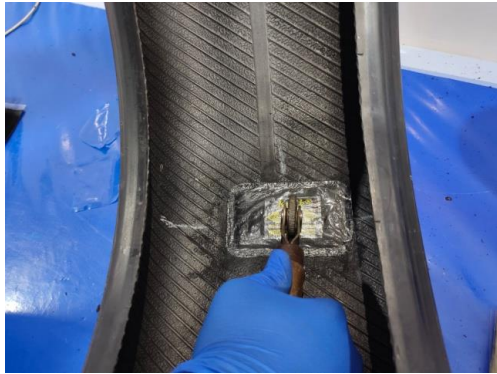
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- Place the cemented Patch on the injury aligning with the marking and centering it to the injury. (Use the reference line for centering).
- Ensure that the cushioned surface is not touched.
- Once the patch is positioned on the injury, press the center of the patch to the injury and then remove the poly film.

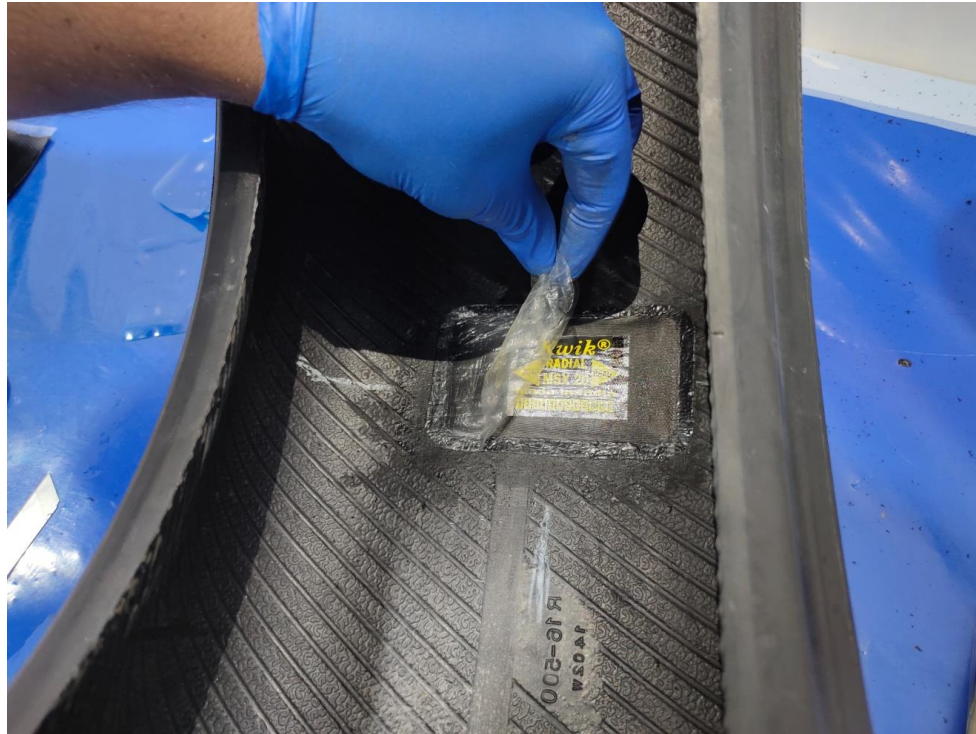


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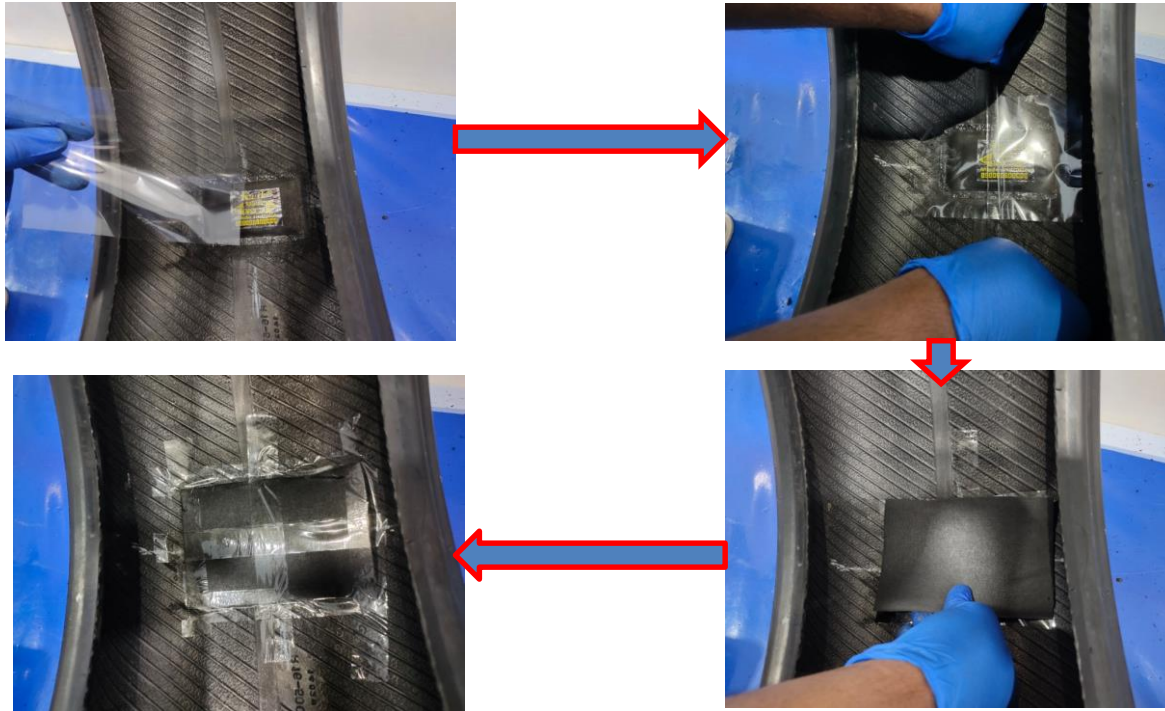
- **Stitch the patch from the center to either sides vigorously using a serrated hand 6mm stitcher. This is to ensure that there are no air trapped in between the patch and Tire.**
- **Repeat this again in the opposite direction from the top to bottom.**

# TYRE PATCH REPAIR – VERSA PATCH



- Ensure that the patch is stitched firmly and there is no wrinkles on the edges of the patch.
- Remove the poly film and once again stitch the edges of the patch properly.

# TYRE PATCH REPAIR – VERSA PATCH



- Apply a heat resistant film over the patch completely covering the patch. Stick this film using a Heat Resistant adhesive tape so that it does not slip from the patch.
- A thick rubber sheet is to be used to cover the entire patch area and properly sealed using a Heat Resistant adhesive tape. This to ensure that it direct heat doesn't soften or peel the patch off during curing.

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- After the tire is cured, inspect the patch.
- Once the tire cools to the room temperature apply a coat of Repair Sealer around the patch and entire exposed buffed area.
- This is to improve the integrity to the inner 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.
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. Use only the proper size and type of carbide rasp to prepare the injuries.
6. While rasping the injury be careful not to buff too deep and expose the tire cords.





## **Important Points to be Observed while Repairing Tire : Continued.....**

- 7. Do not use compressed air to clean the buffed area. Preferably use a vacuum cleaner to clean the buffed area.**
- 8. Use a stippling motion to coat the cement. Do not use compressed air or hair dryer to dry the cement.**
- 9. While drying keep the injury of the tire at 12 o'clock position, to avoid any contamination to the repair area.**
- 10. 10. When the patch is applied ensure that the bead is in the normal position (not spread).**
- 11. The tire is to be used only after 24 hours after the tire is repaired and Retreaded.**





**THANK YOU**



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