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SELF-SEALING TIRES - Repair Guide

Self-Sealing tires have been around since the 1970's when General Tire introduced the 'Genseal'. The basic concept is to install a semi-solid resin in the tread area of a tire that will flow into a puncture cavity or around an object that impales the tire body. The mastic resin used in these tires is solid enough to not flow or settle to the bottom of the tire when static, but liquid enough to flow if the tire cavity is punctured. Although this technology has come and gone over the years, there seems to be renewed interest in this product category as OE vehicle manufacturers eliminate spare tires, jacks and compressor kits to save weight in the vehicles for the sake of space, weight and fuel economy.

Several tire companies make a version of this factory installed resin sealant. The color and texture will vary from one manufacturer to another. These products do not provide a permanent tire repair and must be inspected and repaired properly or replaced.

Current producers of Self-Sealing tires include: Continental, General, Michelin, Uniroyal, Pirelli and Hankook.

Self-Sealing technology tires are repairable using modified industry approved methods. Specifications of injury size limits and location on the tire are the same as any other industry approved repair. The change of procedures is related to using Pre-Buff solvent cleaners, buffing and drilling the injury channel.

SELF-SEALING TIRES - Repair Steps



Fig. 1

1. Using a probe inserted into the injury channel, determine the location through the mastic material where the repair will be located. (Fig. 1).

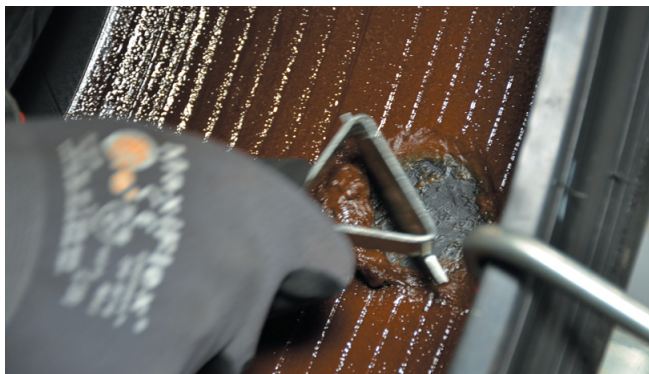


Fig. 2

2. Using a tire scraper, penetrate the sealant resin and pull/push it to the side in an area large enough to accept the patch material. (Fig. 2).

NOTE:

- The tire scraper blade must be very sharp to displace as much of the resin from the liner surface as possible so a visual inspection can be made to insure it meets industry repair limits.
- Use of Pre-Buff Cleaner is not recommended due to seepage of the solvent into the surrounding resin.
- We recommend the Minicombi repair for these tires because using a buffing cup, rotary brush or any gritted stone on the liner if it remains contaminated with resin, will contaminate the cup and render it corrupt for repairs in non-sealant tires.

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Fig. 3

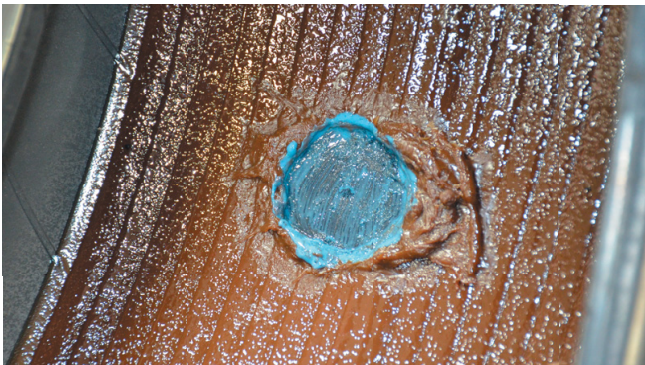


Fig. 4

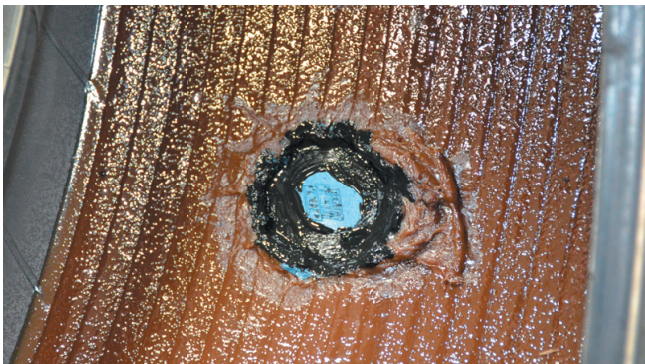


Fig. 5

3. Prepare the injury channel by using a carbide cutter to cut the channel for the rubber stem from the tread side of the tire only. This will help avoid some contamination to the carbide cutter by the resin that might remain in the patch placement area. It will also reduce dust or metal shavings being deposited on the liner side of the tire. (Fig. 3).

Scrape any rubber dust or steel shavings that might get deposited at the liner hole to the edge of the parted resin.

4. Lightly cement the area needed to accept the base of the Minicombi and allow it to dry. **DO NOT BUFF THE AREA FOR THE PATCH BODY!** (Fig. 4).

5. Lubricate the injury channel with cement on a probe and immediately insert the minicombi to the tire.

6. Stitch the combi patch to the cemented liner.

7. Apply Repair Sealer to the edge of the combi patch. (Fig. 5).

8. Cut off the remaining stem flush with the tread and remount and balance the tire.

To remove resin contamination of the repair tools such as the Scraper and Carbide Cutter, use RTT Pre-Buff Cleaner #70-F or 71-F to remove resin from the tools.

These instructions are modified from the standard accepted and published tire repair practices recommended by the tire industry. These modifications pertain only to tires that have SELF-SEALING RESINS applied to the liner of the tires from the tire manufacturer. The elimination of a couple procedures is approved for the prevention of tool and rubber contamination so the integrity of the repair can be repeated and reliable. The practice of filling the injury channel and sealing the liner are paramount to comply with industry standard tire repair. Parting the resin with a liner scraper down to the tire liner is the only way to confirm the injury size is within acceptable repair limits.

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