TECH Recommendations for Repair of Run Flat Tires

Run flat tire, more so than any other tire being considered for repair, should be removed from the wheel and inspected. These tires have been engineered to support the load of the vehicle at little or no air pressure for a specified amount of time by the tire manufacturer. Distance traveled, driving speed, and vehicle maneuverings at low pressure may affect the tire’s integrity and reparability. These tires are susceptible to inner liner separations when run flat for extended periods of time.

Tire Inspection

The tire inspection process is critical in determining if the tire can be safely repaired and returned to service.

The inspection should be done with the tire removed from the wheel and placed on a tire spreader using adequate lighting. The technician must be able to examine the tire beads, interior and exterior sidewalls, and tread area.

Caution: Some run flat tires are mounted on specially designed wheel assemblies. Proper equipment and training are required to prevent damage to the tire and wheel assembly.
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This photo shows innerliner separation in a run flat tire. The tire should not be repaired if this condition is present.

The tire should be rejected if it was known to have been driven in a flat condition in excess of the speed or distance recommended by the tire manufacturer. The tire should also be rejected if any of the following conditions are present:

- Discoloration, separation, creasing, or wrinkling of the inner liner
- Ripples or bulges in the sidewalls
- Tread depth less than 2/32” (1.5mm)
- Severe weather checking (cracking due to oxidation) or structural material (cord) is visible
- Torn, kinked or broken beads
- Cuts, snags or punctures in the sidewalls
- Cuts, snags or punctures in the tread beyond repair limitations

**Repair Limitations**

Once the tire has been removed from the wheel, has been thoroughly inspected, and has been determined to be repairable, it may be repaired using the TECH Uni-Seal or Two-Piece repair methods. Punctures should be limited to the tread area. No injuries larger than ¼” (6mm) in diameter should be repaired. TECH places no limit on the number of nail hole repairs which can be made in a run flat tire, as long as no two injuries are in the same radial cord and the repair units do not overlap.

For complete repair procedures, refer to TECH’s Nail Hole Repair CD, catalog no. RCD1, Uni-Seal Repair Manual, catalog no. RM-4 or Two Piece Repair Manual, no. RM-5.
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Some tire manufacturers specify a minimum air pressure at which the tire may be re-inflated without removal from the wheel for inspection. Consult each tire manufacturer’s warranty for its policy regarding inflation and tire repair.

TECH’s recommendations for repair of run flat tires are to not supersede any recommendations of new tire manufacturers. TECH’s recommendations are based on tests conducted at TECH’s test facility and at an independent lab. TECH is continuously testing new run flat technologies as they enter the market.