Technology: Goodyear Run-flat Radials

From: http://www.goodyear.ca/tires/technology/runflat.html



Think of it. Tires that could suffer a major puncture, instantly lose all air pressure and still be driven for miles. No more fumbling with a jack. No more changing a flat on a busy road.

Since 1993, thousands of Chevrolet Corvette owners have experienced **Goodyear's** unique Run-Flat Technology in the Eagle GS-C EMT. Today, the Eagle F1 Run-Flat is the exclusive tire on every C-5 Corvette.



And now, Goodyear brings you the Eagle Aquasteel Run-Flat, a tire designed specifically for popular minivans, sedans, station wagons and coupes.

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How Goodyear Run-Flat Technology Works (back to the top)



The Run-Flat sidewall is built to maintain its shape and driveability even after losing all air pressure. In fact, the tire performs so well when it's "flat," that cars must be equipped with a sensor system at each wheel to alert the driver to any loss of pressure.

Without such a system, you might drive on the tire until it was damaged beyond repair. The Eagle Aquasteel Run-Flat tire for passenger cars is designed to be driven with no air pressure for up to 50 miles at 55 mph and still be fully repairable.

Will It Fit Any Car? (back to the top)

The Eagle Aquasteel Run-Flat is available in sizes that fit many of the passenger sedans and minivans on the road today.

- Eagle Aquasteel EMT
- Eagle F1 EMT
- Eagle G S-C EMT



Goodyear has chosen a low-pressure sensor system that can be easily installed on any vehicle fitted with Goodyear run-flat tires. Use our <u>dealer locator</u> to locate an Authorized Run-Flat Installer near you.

Run-Flats For ATVs (back to the top)



Four wheelers won't be stopped dead in their tracks by flat tires any longer, as Goodyear introduces a Run-Flat tire designed specifically for all-terrain vehicles.

Goodyear's line of Tracker Run-Flat tires operates on standard ATV rims and will be available soon in several sizes of Tracker PT, Tracker P, Tracker ST and Tracker WS.

An ATV equipped with Tracker Run-Flats can be driven for 50 miles even after the tire suffers a puncture or cut and complete air loss. This Goodyear technology, originally developed for use on the Chevrolet Corvette, benefits farmers, hunters, fishing enthusiasts and recreational ATV riders.

Tires that perform, even when flat, lessen the chance you'll be stranded in a field or the woods, miles from home. They also eliminate the aggravation and down time of tire repairs on the side of the trail and the inconvenience of carrying cumbersome flat repair equipment.

Handling and ride comfort are comparable to running on standard tires. When the Tracker Run-Flat experiences damage and air loss, the tire noticeably deflects and there is a slight change in ATV handling characteristics. These features are designed to inform riders that the tire is damaged but can still be driven for another 50 miles. Repairs can then be made easily, following standard tire repair procedures.

Tracker Run-Flat: New ATV tire technology. Only from Goodyear.

The History of Goodyear Run-Flat Technology

1892 - John F. Seiberling, father of Goodyear's founder Frank, patents a puncture-resistant tire.

1934 - Goodyear introduces Lifeguard safety tube, a fabric tube within the tire; used commercially by automakers and on trucks; an inner chamber slowly released air into the outer tire; recognized as beginning of run-flat era.

1955 - Goodyear introduces Captive Air Shield, a dual chamber wrapped around the tire bead; limited original equipment use.

1963 - Goodyear introduces the Double Eagle with a Lifeguard Safety Spare; commercially on some luxury vehicles as a "the tire with a built-in spare."

1965 - Goodyear introduces Lifeguard Racing Shield in NASCAR stock car racing series. The tire-withina-tire system still is used today.

1977 - Goodyear introduces run-flat stabilizer, a two-piece fiberglass-reinforced plastic.

1978 - Goodyear introduces the SST, the industry's first self-supporting tire, at the New York Auto Show. To be effective, the tire requires a low-pressure warning device.

1983 - Goodyear/Pirelli announce the asymmetric hump wheel to keep beads seated on rim.

1992 - Goodyear announces development of the first mass-produced Eagle GS-C EMT (Extended Mobility Tire), a self-supporting tire construction fitting conventional wheels. It is a \$70 option on the 1994 Chevrolet Corvette.

1993 - Goodyear's Eagle GS-C EMT wins the 1993 Discover Award for Automotive Technological Innovation.

1994-95 - Goodyear Eagle GS-C EMT chosen as OE option on 1995 & 1996 Chevrolet Corvette.

1996 - Goodyear Eagle F1 Run-Flat chosen as standard equipment on the 1997 Chevrolet C-5 Corvette. The car is designed without a spare tire and tire changing equipment.

Goodyear Eagle GS-D Run-Flat chosen as standard equipment on the 1997 Plymouth Prowler. The Prowler also is designed without a spare tire and tire changing equipment.

1997 - Goodyear announces plans to make run-flat technology available in a wide range of passenger-car tires. A new line of run-flat tires for all-terrain vehicles is also developed