



## U.S. Postal Service Tire Sealant Evaluation Summary

PneumaSeal has successfully completed testing for the USPS vehicle maintenance specifications. The testing completed by Smithers Scientific confirmed that PneumaSeal meets or exceeds the tire sealant specifications outlined in the USPS Vehicle Maintenance Bulletin Supplement #4 to the original performance requirements stated in V-21-93.

The U.S. Postal Service also confirms that PneumaSeal meets or exceeds all the requirements set forth in Vehicle Maintenance Bulletin V-11-95 and that PneumaSeal is approved for use in USPS vehicles. The United States Postal Service has 27,000 post offices and over 1,000,000 vehicles in its total fleet.

The following excerpts come directly from the bulletin:

As part of compliance with the Environmental Protection Agency and the National Energy Strategy, and in concert with Postal Service recycling efforts, the following procedure is mandatory for extending tire casings and making full use of the available modern tire retread technology.

All Vehicle Maintenance Facilities (VMFs) will make full use retreading services for tires used on all postal service vehicles. Where ever possible, the use of headquarters approved tire sealants is suggested in order to extend the life of the tire casing. The use of tire sealant / tire life extenders will:

- Reduce road calls
- Assume constant tire pressure for the life of the tire
- Result in cooler running tires
- Extend tire life
- Even tread wear
- Reduce maintenance costs
- Protect against air pressure loss due to average punctures

The Postal Service established rigid criteria for a tire sealant to meet before it will be approved for use in USPS vehicles. All testing of tire sealants must be done at an USPS approved testing center. The primary criteria: (Note: PneumaSeal meets all of these criteria)

- Maintenance of proper air pressure
- Prevention of air migration
- Prevention of porosity leaks
- Conditioning and prevention of rot and weathering within the tire
- Cooler running tires
- The sealant must be warranted in writing

The Postal Service's bulletin states that proper inflation pressure is the single most important factor in overall tire performance and reliability. Underinflation is the worst enemy of tires. The primary cause for tire blowouts in both new tires and retreads, can be traced back to improper air pressure.

New and retreaded tires reach their maximum operating temperature in 90 minutes at highway speeds. If an underinflation situation exists, tire heat will climb until either tire failure or damage to the casing construction occurs. If the casing damage goes undetected, the damaged tire, when retreaded, will eventually fail due to the heat build up caused when the tire casing was new.

The Postal Service bulletin also states that tire inflation has a tremendous effect on fuel economy.