

TEST RESULTS

SAFETY SEAL® — 40,000 MILE TEST

- CONDUCTED FOR:** North Shore Laboratories Corp., Peabody, MA 01960 U.S.A.
- CONDUCTED BY:** Internationally recognized Auto and Tire Testing Laboratory (Ohio/Texas)
- PRODUCT TESTED:** SAFETY SEAL® tubeless tire repair.
- TEST DATE:** April 12, 1990 — August 7, 1990
- TEST GOAL:** To evaluate the sealing characteristics of the puncture repair Safety Seal® over the tread life of the four tires.
- TEST DESCRIPTION:**
- 1.) Tires: 4 B.F. Goodrich steel belted radials (P205/75 R15 XLM H/T).
 - 2.) Puncture Size: 3/16 inch (common nail).
 - 3.) Test Procedure:
 - A.) Tires punctured then driven with nails in place for 50 miles, to simulate actual puncture conditions.
 - B.) Tires repaired by independent repair facility with Safety Seal® tubeless tire repairs following manufacturers' instructions.
 - C.) Tires subjected to pre-test holographic analysis to confirm structural integrity of tires.
 - D.) Tires installed on 1989 Chevrolet Astrovan (@ 35 p.s.i.) for endurance test.
- TEST BEGINS:** April 12, 1990.
- VEHICLE TEST ROUTE:** Highway — Secondary Roads — City — Test Track (speeds up to 95 mph)
- TEST CONTROL:** Air Pressure Monitored Daily — Tires Rotated @ 3,000 mile intervals — Tread Wear Examination @ 6,000 mile intervals.
- TEST CONCLUDES:** August 7, 1990. **TEST MILEAGE 41,351 MILES.** Test concludes when tread-wear reaches legal limit (treadwear indicators exposed).
- POST TEST EXAMINATION:**
- 1.) Physical Inspection — **NO AIR LOSS** throughout the 41,351 mile test — no structural damage.
 - 2.) Holographic Analysis — **NO PLY SEPARATION** or damage near or around repair in each tire.
 - 3.) X-Ray — **NO WIRE CORD CORROSION**, deterioration, distortion, or rusting.
- CONCLUSION:** **“All tires successfully completed 41,351 mile tread wear test. All repair locations were deemed sound and exhibited no evidence of air loss or damage.”**

THE ULTIMATE TEST

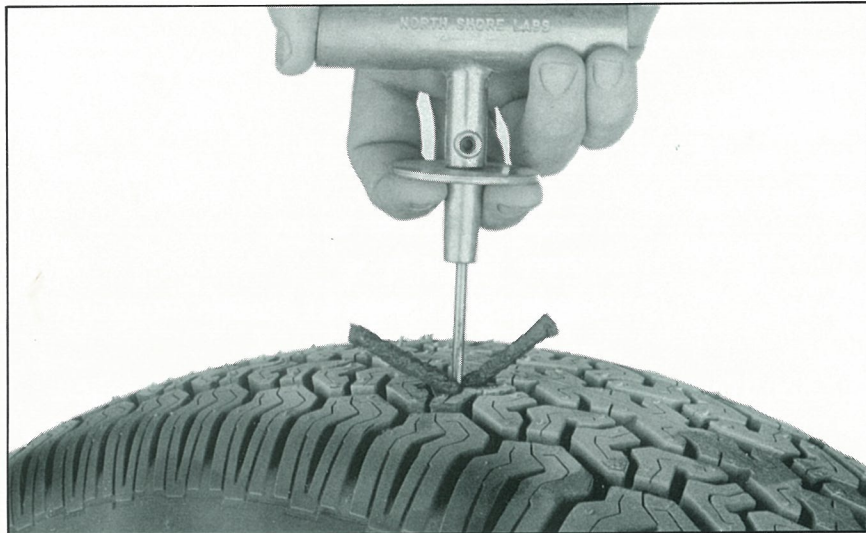


THE PUNCTURE

4 Punctures 3/16 inch (common nail)

4 B.F. Goodrich Steel Belted Radials
(P205/75R15 XLM H/T)

Tires driven 50 miles with nails in place
to simulate actual puncture conditions.



THE REPAIR

Tires repaired with

SAFETY SEAL[®]
Tubeless Tire Repair

Tires inflated to 35 p.s.i.
delivered to test facility.



THE RESULTS

After **41,351 MILES** —
Tread wears out but

SAFETY SEAL[®]
KEEPS ON GOING

X-Ray — Holograph — Inspection
show

NO AIR LOSS
NO PLY SEPARATION
NO CORD DAMAGE

SAFETY SEAL[®] PROVEN SAFE & EFFECTIVE FOR THE LIFE OF THE TIRE

NORTH SHORE LABORATORIES CORPORATION

P.O. Box 568 • Peabody, MA 01960 • Telephone 1-800-888-9021 (978) 531-3044 531-5954 • Fax (978) 532-3509

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Test Results

SAFETY SEAL® TESTED IN SPEED RATED TIRES

Three speed rated tires, speed ratings H, V, Z, were each tested at their maximum rated speeds (ECE 30)*

TEST RESULTS: All three speed rated tires containing four Safety Seal repairs successfully completed the ECE 30 test without failure or loss of air pressure.



TIRE: 225/60 HR 14
SPEED RATING: H-124 mph
TEST TYPE: ECE 30
MAX. TEST SPEED: 124.3 mph
REMARKS: tire contains 4 Safety Seal repairs

TIRE: 205/60 VR 15
SPEED RATING: V-130 + mph
TEST TYPE: ECE 30
MAX. TEST SPEED: 142.9 mph
REMARKS: tire contains 4 Safety Seal repairs

TIRE: 235/45 ZR 17
SPEED RATING: Z-150 + mph
TEST TYPE: ECE 30
MAX. TEST SPEED: 150 mph
REMARKS: tire contains 4 Safety Seal repair

| TEST | | | TEST | | | TEST | | |
|------|---------------|-------|------|---------------|-------|------|---------------|-------|
| Step | Duration/Min. | Speed | Step | Duration/Min. | Speed | Step | Duration/Min. | Speed |
| 1 | 0-2 | 21.2 | 1 | 0-2 | 24.9 | 1 | 0-4 | 24.9 |
| 2 | 2-4 | 42.4 | 2 | 2-4 | 49.7 | 2 | 4-8 | 49.7 |
| 3 | 4-6 | 63.4 | 3 | 4-6 | 74.6 | 3 | 8-12 | 74.6 |
| 4 | 6-8 | 84.5 | 4 | 6-8 | 99.4 | 4 | 12-16 | 99.4 |
| 5 | 8-10 | 105.6 | 5 | 8-10 | 124.3 | 5 | 16-20 | 124.3 |
| 6 | 10-20 | 105.6 | 6 | 10-20 | 124.4 | 6 | 20-40 | 124.3 |
| 7 | 20-30 | 111.8 | 7 | 20-30 | 130.5 | 7 | 40-60 | 130.5 |
| 8 | 30-40 | 118.0 | 8 | 30-40 | 136.7 | 8 | 60-80 | 136.7 |
| 9 | 40-60 | 124.3 | 9 | 40-60 | 142.9 | 9 | 80-120 | 150.0 |

RESULTS: Pass Fail

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COMMENTS: Successfully completed ECE 30 test. No loss of air, no decrease in air pressure.

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Test conducted by a Qualified Independent Testing Laboratory. Complete test results available upon request.

*ECE 30 test specification available upon request.