## HYPERFIRM<sup>™</sup> BRAKE LINE KITS

Certain Hyper Firm brake hose assemblies are covered by US Patent No. 5,908,090.

## Average Stopping Distance \*





This illustration represents the results of our initial comparison testing. The vehicle used was a 1996 Toyota Supra, equipped with anti-lock brakes. Professional drivers were used on a closed course.



HYPERFIRM<sup>®</sup> brake hoses not only meet all D.O.T., T.U.V and J.W.A. standards and specifications for flexible brake hoses, including SAE J 1401 (Jan 81) and FMVSS 106-74-38 FR31302 1973, they are individually inspected and tested before shipment. Batch testing, the industry standard, is not acceptable at Earl's. Each individual hose assembly is pressure tested at 4000 psi after manufacture.

**Serious race car owners** have used flexible brake hoses of extruded Teflon<sup>™</sup> for decades. They are protected against abrasion and swelling by a sheath of tightly braided stainless steel wire. The resistance to "line swell" both improves the firmness or "feel" of the brake pedal and reduces the time required for effective pressure to reach the brakes and begin to slow the car.

Equally important in street vehicles, improvement in pedal firmness and feel make brake modulation easier and more efficient—right up to the time that the anti-lock brake system is actuated. The familiar brake pedal "thump" of anti-lock brake systems is significantly reduced. The decreased system reaction time reduces stopping distance in emergency situations—as much as 18 feet at 80 miles per hour.

The Teflon<sup>™</sup>/stainless steel brake hoses have not been available for legal use on street driven vehicles until recently. All safety-related components on street vehicles must meet stringent requirements and tests set forth by the National Highway Traffic Safety Administration of the U.S. Department of Transportation. The most demanding test for brake hoses is the "whip test," designed to simulate the continuous flexing of the hoses during suspension and steering movement. Until Earl's developed and patented their exclusive "whip dampener," Teflon<sup>™</sup>/stainless steel hoses were not able to pass this extremely rigorous test.

The D.O.T. does not "approve" any products. It calls out specifications and test procedures that the components must meet. The manufacturers then self-certify that they are in compliance. The D.O.T. may randomly require that components be tested by an independent certified laboratory selected by the D.O.T.