



Raybestos®
The *best* in brakes®



THE TRUTH ABOUT BRAKE TECHNOLOGY

RAYBESTOS® POLICE BRAKE PADS

RAYBESTOS® POLICE BRAKE PADS LEAD THE AFTERMARKET IN THE REPLACEMENT BRAKE PAD PERFORMANCE EVALUATION PROJECT PERFORMED BY THE NATIONAL INSTITUTE OF JUSTICE/MICHIGAN STATE POLICE

THE REASON FOR THE TESTING

Police patrol vehicles are subjected to more severe operating conditions than the average passenger car. Police vehicles are frequently operated at high speeds and often need to stop quickly. This ability to stop in a safe and consistent manner is vital to the safety of the officer and the general public.

Most commercial brake pads compromise high-end performance in favor of longer life. Many competitors also compromise brake noise when developing high-performance friction. While these brake pads are perfectly acceptable under normal driving conditions, they can negatively affect the performance of a police vehicle during severe operating conditions.

TESTING OVERVIEW

The National Institute of Justice (NIJ) National Law Enforcement and Corrections Technology Center (NLECTC) completed its third comprehensive evaluation of replacement brake pads for police patrol vehicles. This voluntary equipment testing and evaluation program confirms the safety of the braking components installed on police vehicles.

This independent and impartial evaluation provides law enforcement agencies across the country with information that helps them make informed decisions regarding replacement brake pads. This program is administered by the Michigan State Police (MSP) Vehicle Test Team and entails two test stages:

Phase One – Prescreening

An FMVSS 135-based inertia dynamometer laboratory performance screening test with high speed (120 mph) pursuit sections added. These tests were conducted independently at Greening Testing Laboratories in Detroit.

A maximum of three top candidates for each vehicle application continued on to Stage Two testing. Not all pads submitted passed the FMVSS 135 requirements and were not able to move on to the next phase of testing.

Phase Two – On-track Evaluation

Conducted on four police pursuit platforms equipped with friction that passed phase one. The tests measured straight-line braking from two different speeds and timed laps around an enclosed road course.

The straight line tests included two series of 60-0 mph and 125-0 mph stops. The last phase of the on-car evaluation simulates actual conditions encountered in pursuit or emergency situations. Each vehicle is driven on a road course for 32 timed laps using 4 separate drivers. The test is conducted blindly to prevent product bias.



A SUMMARY OF NOTEWORTHY RESULTS

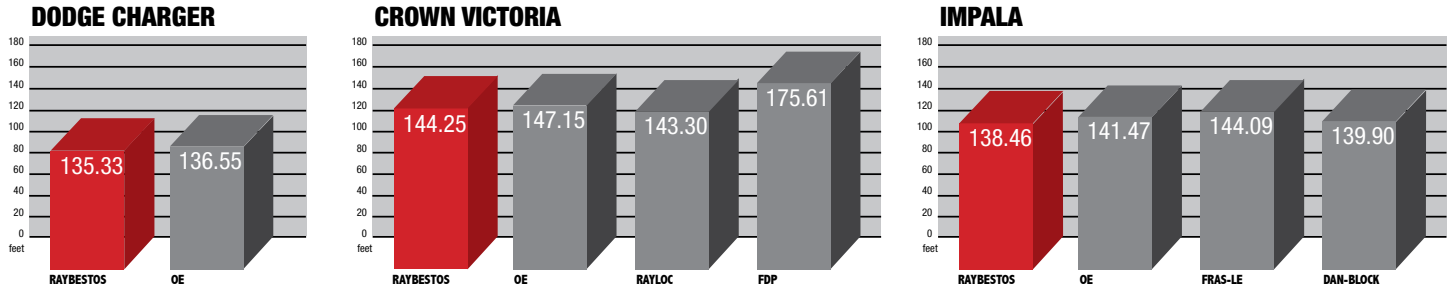
- 28 friction suppliers submitted product for testing, but only 5 suppliers made it past the first stage of dynamometer testing.
- Raybestos was the ONLY Aftermarket brand to pass the first phase of testing on all 4 vehicles. The other 4 suppliers that made Phase 2 testing each passed on only one platform.
- Raybestos was the ONLY Aftermarket manufacturer that passed Phase 1 testing on the Dodge Charger and Chevrolet Tahoe.
- Phase 1 of this test uses FMVSS 135 as criteria for passing to the next phase of testing. Raybestos was the ONLY Aftermarket brand to have product that passed on more than one platform.
- Raybestos outperformed OE in stopping distance on 3 of 4 platforms.



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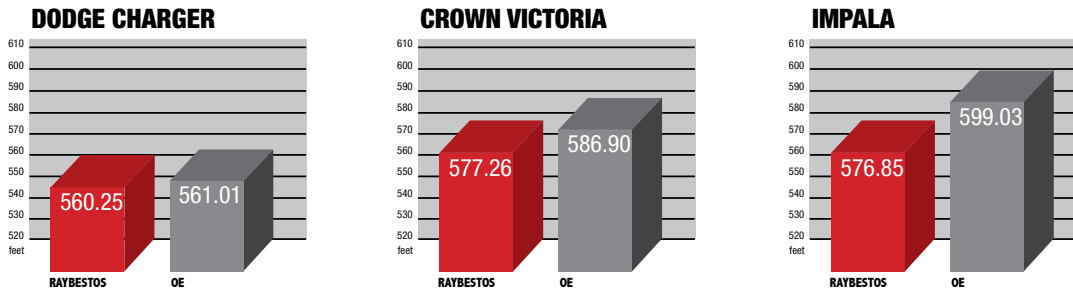
BRAKE PAD STOPPING DISTANCE TESTS BY VEHICLE PLATFORM (60-0 MPH)

After four stop tests, the average stopping distances were summarized. On average, Raybestos pads surpassed OE and most of the competition on three platforms... the Charger, Crown Victoria and Impala.



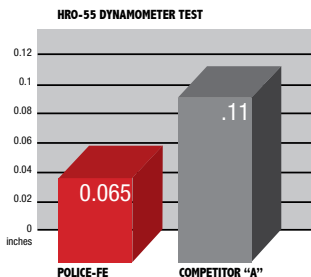
BRAKE PAD STOPPING DISTANCE TESTS BY VEHICLE PLATFORM (125-0 MPH)

After four stop tests, the average stopping distances were summarized. On average, Raybestos pads surpassed OE on three platforms... the Charger, Crown Victoria and Impala.



BRAKE PAD WEAR TESTS

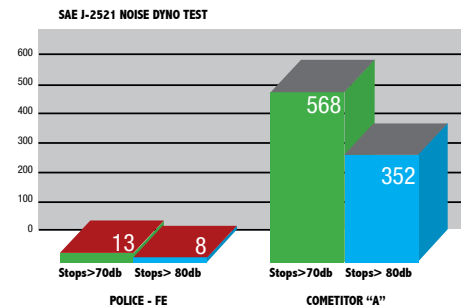
The testing conducted in the 2010 NIJ-MSP replacement brake pad assessment project was not intended to predict wear life in normal vehicle service. This was a performance evaluation that measured overall wear during this high-speed test. Raybestos friction has been both dyno and police fleet tested for wear. The Raybestos brand has continually outperformed both OE and Aftermarket competitors in wear testing, which provides improved “cost per mile” value to the customer.



- Combined max wear
- D931 - 2011-2008 Ford Crown Victoria
- Competitors pad had almost twice the pad wear as the Raybestos Police pad

BRAKE NOISE

Just like pad wear, the NIJ-MSP pad test was not a test for brake noise. However, the Raybestos friction was found as quiet or quieter than the competition on each platform as noted by each test driver.



- D931 - 2011-2008 Ford Crown Victoria
- 1430 Deceleration Cycles
- Events over 70 and 80db