



Raybestos
The *best* in brakes[®]

THE TRUTH ABOUT BRAKE TECHNOLOGY

RAYBESTOS[®] VS WAGNER[®] THERMOQUIET[®] FEATURING EDGE[™]



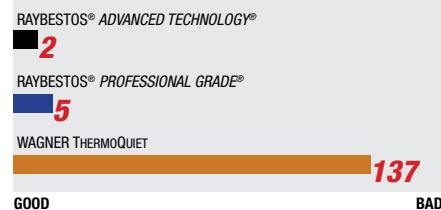
THE CLAIM

Wagner claims ThermoQuiet provides “virtually silent braking.”

THE TRUTH

During a SAE J2521 test of 570 stops, using a Wagner semi-met formula, results show 137 occurrences of noise at 80db or higher. The same test on Raybestos Professional Grade[®] semi-met pads had results of 5 occurrences and our Advanced Technology[®] semi-met pads had results of two noise occurrences of 80db or higher.

NOISE OCCURRENCES OVER 80db



Wagner claims ThermoQuiet with Edge’s “custom-shaped friction provides more focused caliper force for more positive brake pad/rotor contact.”

Complex chamfers that vary from Original Equipment (OE) design often remove a significant amount of brake surface area. Cutting away the edges of a pad reduces the pad to rotor contact surface area. As the pad wears, the chamfer changes and the potential for noise increases. Raybestos pads follow OE chamfer design, and have friction formulations with application-specific materials that ensure quiet operation for the entire life of the pad.

Wagner uses the “IMI” (integrally molded insulator) type shim on ThermoQuiet. Wagner claims that IMI is quiet.

Performance tests found the piston rapidly cuts through the IMI shim which may cause increased pedal travel, deteriorating pedal feel and potential noise. Once the IMI material is cut through it loses its ability to dampen noise.



WAGNER ThermoQuiet damage

Wagner IMI shims – different than Raybestos and OE.

IMI shim design is often thicker than OE or Raybestos shim material, and can sacrifice usable pad life. No OE manufacturer uses IMI-style shims. Raybestos brand brakes uses several different application-specific shims for optimal performance and noise dampening.



RAYBESTOS PROFESSIONAL GRADE | WAGNER Thermo Quiet | RAYBESTOS PROFESSIONAL GRADE | WAGNER ThermoQuiet

Less Friction Material = Reduced Life and Increased Cost Per Mile

Wagner’s MX 945 has shim and slot attributes – claims to match OE.

Wagner’s MX 945 has IMI shim design and is missing slots and a hardware kit. The comparable Raybestos Professional Grade part features premium attached shims, slots, and chamfers where needed to match OE design. Abutment clips are included where required.



RAYBESTOS PROFESSIONAL GRADE

WAGNER ThermoQuiet



FRICITION RETENTION MECHANICAL ATTACHMENT

Raybestos uses mechanically attached steel backing plates on many applications to provide improved pad shear strength. *Wagner ThermoQuiet uses virtually none.*

Key Raybestos application usage:

- All Medium Duty Truck Applications
- Light Trucks With GVWR At or Above 10,000 Lbs
- Pads With Plates At Or Below 0.190" Thick
- Pads Over 8" Long
- Police
- Racing



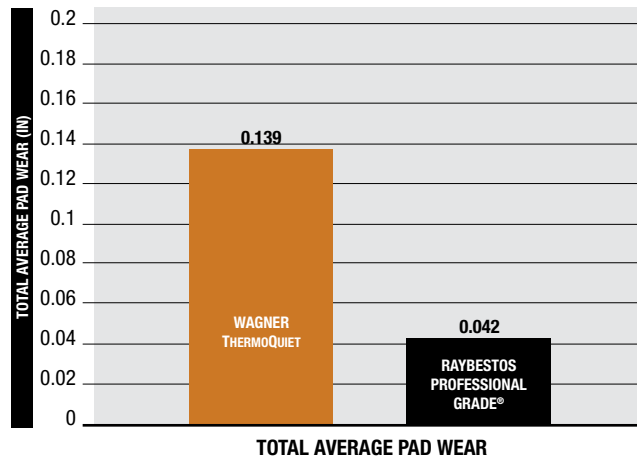
Raybestos mechanically attached steel backing plate.



Our engineers conduct shear testing on Raybestos and competitive disc pads. This test measures the amount of force required to "break off" the friction material from the steel backing plate.

PAD WEAR

Raybestos brand Professional Grade brake pads have a greater service life over Wagner ThermoQuiet. The more pads wear, the greater the chance dusting will occur. Pad durability can extend service life which leads to overall cost per mile savings.



STEEL AND CRITICAL DIMENSIONS

Critical dimensions on many applications are imperative for proper pad and caliper fit and movement. Raybestos uses specially machined steel that holds these tolerances within the OE specification allowing free movement of the pad within the caliper assembly.

