



# police brake system declaration of conformity

**using laboratory test procedures to assess pursuit, performance, durability, NVH, and structural integrity**

**third-party testing and registrar with acceptance criteria for pursuit and service vehicle applications**

**royalty-free conformity assessment program along with supplier's internal testing and quality system**



## typical uses

the police brake declaration of conformity in any of its versions (brake kits, brake pads, or brake rotors) provides laboratory assessment related to:

friction material and brake rotors are robustness for regular driving and police pursuit applications

proper comparison of friction material and brake behavior when tested on several platforms using standard test procedures and conditions

initial evaluation and ongoing product monitoring for police fleet products

## vehicle applications

the police declaration of conformity includes front and rear brakes for:

Ford Crown Victoria, Explorer, and Taurus (police interceptor)

Chevrolet Caprice, Impala and Tahoe

Dodge Charger

testing uses OE corner assemblies fitted with OE or OES brake hardware

main parameters include vehicle weight, tire rolling radius, brake effective radius, brake pressure at 500 N pedal force with brake booster fully-depleted, and OE pedal force levels during handing and pursuit circuits

## conformity process

supplier provides during initial evaluation and annual audits:

all samples and vehicle applications to Link Engineering (third-party testing)

AMECA with company and quality system information (program registrar)

Link Engineering conducts testing and reports results to the manufacturer, including pass/fail criteria

supplier authorizes Link Engineering to submit results to AMECA for online publication (vehicle application and part numbers)

## test plans for individual components or “brake kits”

test	acceptance criteria	friction	rotors
LINK Pomona LACSD with 4-driver evaluation and brake evaluation	99% deceleration levels within OE limits 90% structural integrity 4 mm maximum backing plate deflection 2 mm minimum pad final thickness friction level not less than 0.05 below OE	yes	yes
SAE J2784 – FMVSS 135 with cold, high-speed effectiveness, and fade	meet Link-CA criteria during: cold and high speed effectiveness, failed power assist, and hot performance	yes	yes
SAE J2707B durability with rural, city, mountain, and highway driving	wear rate is a not more than 1.2-times OE when testing at moderate-to-severe speeds and vehicle decelerations	yes	yes
SAE J2521 squeal noise, including cold and post-fade	cumulative noise not more than one ranking below the OE (using VDA306 rating)	yes	yes
SAE J2928 rotor crack	1 rotor to 150 cycles, 2 rotors within 100-150 cycles, or 2 rotors same as OE	no	yes
ISO 26867 friction behavior up to 500 °C	$\mu_{\text{mean}} \pm 15\%$ declared value $\mu_{\text{minimum}}$ and $\mu_{\text{maximum}} \geq$ declared value	yes	yes
SAE J840 shear strength	bonding strength at least 1.4-times torque at 1g	yes	no
testing frequency	<b>initial declaration, formulation change, or at 5-year renewal</b> five samples for shear strength; one test per dynamometer procedure (up-to-3 for rotor crack) <b>annual audit</b> five samples SAE J840 bonding shear strength one ISO 26867 dynamometer friction behavior		