

Impulse EV8 Muffler Emission Test Results

Emission Gas Analyser: Sun 1700

Vehicle: 2004 Toyota Corolla Sportivo
Engine: 1.8 litre 4 cylinder VTEC
Peak RPM: 8000
Exhaust System: 2 1/2" OEM
Catalytic Converter: 2 1/2" OEM
Fuel: Premium Unleaded



BEFORE – with Catalytic Converter

Date: 16-5-07

RPM: 800

RPM: 2500

CO	0.10 – 0.27 %	0.29 – 0.43 %
HC	338 – 395 ppm	51 – 78 ppm
O ₂	0.61 %	0.46 %
CO ₂	14.73 %	14.73 %
LAMBDA	1.01	1.01
AFR	14.7	14.6

AFTER – with Impulse EV8 Muffler and Catalytic Converter

Impulse EV8 Muffler (2 1/2" x 6" long) fitted in front of the Catalytic Converter with NO other modifications.

Date: 16-5-07

RPM: 800

RPM: 2500

CO	0.00 – 0.02 %	0.00 – 0.01 %
HC	25 – 42 ppm*	3 – 5 ppm*
O ₂	0.68 %	0.31 %
CO ₂	15.02 %	15.51 %
LAMBDA	1.03	1.01
AFR	14.9	14.7

* Level of HC emissions in the atmosphere was 3-4 ppm

- **98% lower Carbon Monoxide (CO) emissions**
- **94% lower Hydrocarbon (HC) emissions**
- **85% lower Nitrogen Oxide (NOx) emissions** (NOx emissions projected based on Diesel test results)

NOTE

We also tested the Impulse EV8 Muffler with the aftermarket Catalytic Converter and found it produces the same near zero emissions as with the more efficient and expensive OEM Catalytic Converter. This eliminates the need to use expensive or multiple Catalytic Converters.

Toxic Emissions – Carbon Monoxide (CO), Nitrogen Oxide (NOx) and Hydrocarbon (HC)

Harmless Emissions – Carbon Dioxide (CO₂) and Oxygen (O₂)