

2014 Chevrolet Cruze Turbo Diesel

Advanced Vehicle Testing – Baseline Testing Results



VEHICLE SPECIFICATIONS¹

Vehicle Features

VIN: 1G1P75SZ1E7326917
 Class: Compact
 Seatbelt Positions: 5
 Type: Diesel
 CARB²: LEV-III LEV160
 EPA Fuel Economy: 27 mpg/
 46 mpg/33 mpg
 (City/Highway/Combined)

Engine

Model: Turbocharged, DOHC I-4
 Diesel Engine with DPF
 Displacement: 2.0 L
 Output: 113 kW @ 4,000 rpm
 Torque: 358 Nm @ 2,600 rpm
 Fuel Tank Capacity: 15.6 gal
 Fuel Type: Ultra Low-Sulfur Diesel

Transmission

Type: Semi-Automatic, Six-speed

Weights

Design Curb Weight: 3,471 lb
 Delivered Curb Weight: 3,482 lb
 Distribution F/R (%): 63/37
 GVWR: 4,423 lb
 GAWR F/R: 2,407 lb/2,016 lb
 Max. Payload: 952 lb

Dimensions

Wheelbase: 105.7 in
 Track F/R: 60.7 in/61.3 in
 Length/Width: 181.0 in/70.7 in
 Height: 58.1 in

Tires

Manufacturer: Goodyear
 Model: Assurance
 Size: 215/55R17
 Pressure F/R: 38 psi/38 psi
 Spare Installed: Sealant and
 Inflator Kit

Exhaust System

Urea Tank: 4.9 gal, API certified
 or ISO 22241 DEF

NOTES:

1. Vehicle specifications were supplied by the manufacturer, measured, or derived from a literature review.
2. The vehicle was designated as a LEV-III LEV160 by the California Air Resources Board (CARB).

PERFORMANCE STATISTICS¹

TRACK TESTING²

Acceleration 0-60 mph³

Measured Time: 10.8 s

Performance Goal: ≤13.5 s

Maximum Speed

At ¼ Mile: 80.3 mph

At 1 Mile⁴: 114.6 mph

Performance Goal: ≥90 mph at one-mile mark

Braking from 60-0 mph⁵

Measured Time: 3.4 s

Distance: 124 ft

Deceleration from 60-10 mph⁶

Measured Time: 67.8 s

Distance: 3,407 ft

DYNAMOMETER TESTING⁷

Cycle Results⁸

	72 °F	20 °F	95 °F + 850 W/m ²
UDDS (Cold Start)	30.9 mpg	24.5 mpg	23.7 mpg
UDDS	34.0 mpg	32.7 mpg	25.5 mpg
HWFET	54.5 mpg	51.1 mpg	44.9 mpg
US06	37.0 mpg	35.1 mpg	31.0 mpg
SC03			26.7 mpg

Energy Consumption at Steady-State Speed, 0% Grade

10 mph	38.1 mpg	50 mph	60.5 mpg
20 mph	54.0 mpg	60 mph	55.4 mpg
30 mph	68.4 mpg	70 mph	50.6 mpg
40 mph	63.6 mpg	80 mph	43.8 mpg

Duration of Passing Maneuver at Grade⁹

	0% Grade	3% Grade	6% Grade
35-55 mph	5.2 s	5.6 s	6.1 s
55-65 mph	3.8 s	4.0 s	4.4 s
35-70 mph	9.4 s	10.8 s	12.6 s
55-80 mph	8.7 s	10.2 s	12.7 s

Maximum Speed at 25% Grade from Stop: 45.4 mph

NOTES:

- Performance numbers based on "Normal" vehicle mode. Performance numbers are averages from multiple tests.
- Vehicle track testing occurs when the vehicle has achieved its "break-in mileage" of between 4,000 to 6,000 miles, and at the delivered curb weight plus 332 ± 10 lb (including driver and test equipment), distributed in a manner similar to the original curb loading of the vehicle. Track testing took place on October 3, 2014, with a beginning vehicle odometer reading of 4,080 miles.
- The acceleration is measured from the point at which the vehicle begins to move.
- The maximum speed was reached before the one-mile mark.
- Controlled braking on dry surface.
- Coasting in 'Drive' on dry surface. Test run data were cut off when the vehicle reached 10 mph, as vehicle creep speeds are typically below this threshold.
- Dynamometer testing occurs after the track testing is complete. Dynamometer testing began on October 22, 2014, with the vehicle odometer reading 4,930 miles. A comprehensive explanation of the dynamometer facility and methodology can be found at <http://www.transportation.anl.gov/D3/>, titled "Chassis Dynamometer Testing Reference Document". The ABC coefficients derived from track coastdown testing and matched on the dynamometer were A: 22.6360 lb, B: 1.2395 lb/mph, and C: 0.00193 lb/mph².
- The Cycle Results table presents the fuel economy achieved by the vehicle on five EPA drive cycles at three different ambient temperatures: (1) 72 °F with vehicle climate-control off, (2) 20 °F with vehicle climate-control set to 72°F, and (3) 95 °F with vehicle climate-control set to 72°F. For (3), the vehicle is also subjected to 850 W/m² of solar load at 95 °F to simulate direct sunlight. The drive cycles include a hot start unless otherwise indicated.
- The passing maneuver value indicates the amount of time required for the vehicle to transition from the first to the second speed listed, at the specified grade.

Values in red indicate that the Performance Goal was not met.

As a production vehicle, this vehicle is assumed to meet all Federal Motor Vehicle Safety Standards (FMVSS) for Internal Combustion Engine Vehicles.

This information was prepared with the support of the U.S. Department of Energy (DOE) under Award No. DE-EE0005501. However, any opinions, findings, conclusions or recommendations expressed herein are those of the author(s) and do not necessarily reflect the views of the DOE.