

Crash Test Results

New Car Safety

KIA OPTIMA

From 2011 Front+side+head airbags



Offset crash test at 64km/h



ANCAP

Rated ★★★★★

Occupant Protection

Occupant Protection Score 35.58 out of 37

Variant: Si

Eng: 2.4 petrol

Kerb mass: 1500 kg

Category: CAR - MEDIUM

Vehicles built: 2011

Model History and Safety Features

The tested model of Kia Optima was introduced in Australia and New Zealand during 2011.

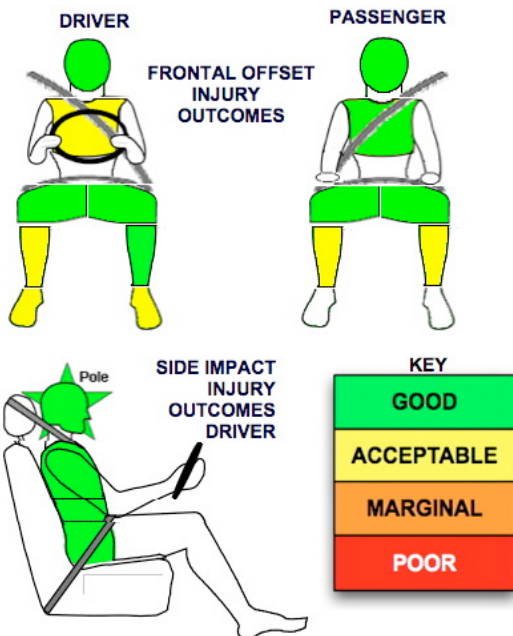
Dual front airbags, side airbags and head-protecting side curtains are standard equipment. Antilock brakes (ABS), electronic brake distribution (EBD), electronic stability control (ESC) and a reversing camera are also standard. Advanced seat belt reminders are fitted to all seats.

Pretensioners are fitted to the front seat belts to reduce slack in the event of a crash.

OCCUPANT PROTECTION: 5 Stars

The Optima scored 14.58 out of 16 in the offset crash test. The passenger compartment held its shape well. There was a slight risk of serious chest and leg injury for the driver.

The vehicle scored 16 out of 16 in the side impact crash test and a further two points in the pole test..



FRONTAL OFFSET CRASH TEST

Body region scores out of 4 points each: Head/neck 4 pts, chest 3.47 pts, upper legs 4 pts, lower legs 3.11 pts.

The passenger compartment held its shape well in the offset crash test. The brake pedal moved rearwards by 69 mm and upwards 4 mm. The steering wheel hub moved 4mm forward, 4mm downward and 16 mm sideways. The front ("A") pillar moved 46 mm rearwards. All doors remained closed during the crash. After the crash the all door could be opened with normal effort.

The airbag cushioned the head of the driver and contact was stable. The passenger's head was cushioned by the airbag. There were no knee hazards.

SIDE IMPACT CRASH TEST

Body region scores out of 4 points each: Head 4 pts, chest 4 pts, abdomen 4 pts, pelvis 4 pts.

The vehicle was eligible for an optional pole impact test, since it had head-protecting side airbags. The vehicle earned the maximum two points in this test.

PEDESTRIAN PROTECTION: Pending

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optima11.doc

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Crash testing for safety

AUSTRALASIAN
NEW CAR ASSESSMENT
PROGRAM

TECHNICAL DATA - KIA OPTIMA - From 2011

INJURY MEASUREMENTS

Body region	Offset Crash Test at 64km/h (v5.1)		Side Impact Crash Test at 50km/h (v5.1)
	Driver	Passenger	Driver
Head HIC	284	233	57
Acceleration (g for 3ms)	39.6	41.5	26.3
Neck - Shear (kN)	0.68	0.53	-
Tension (kN)	1.52	0.87	-
Extension (Nm)	11.4	28.7	-
Chest Accln (g for 3ms)	43.700	32.400	-
Compression (mm)	25.72	20.80	14.40
Viscous criterion (m/s)	0.09	0.09	0.07
Abdomen - Force (kN)	-	-	0.510
Pelvis - Force (kN)	-	-	1.560
Upper legs Force (kN)	Left	0.75	0.21
	Right	2.25	0.58
Knee displ (mm)	Left	0.21	0.15
	Right	0.43	1.32
Lower legs Force (kN)	Left	1.82	2.57
	Right	1.83	2.58
Index (Upper/Low)	Left	0.31 /0.39	0.28 /0.37
	Right	0.54 /0.60	0.28/0.24

Bonus points (maximum 5)

Pole Test: 2 pts

Seat belt reminders: 3 (see table below for details)

Modifiers - deductions from offset test scores

Head No deduction
 Chest No deduction
 Upper leg No deduction
 Lower leg No deduction
 Foot score Blocked brake pedal Score 3.92 points

Note: Steering column and pedal movements are measured relative to the driver's seat.

Modifiers - deductions from side impact test scores

Chest No deduction

Safety features

These specifications are subject to change. Please check with manufacturer for the latest specifications.



Driver airbag	S	Antilock (ABS) brakes / Electronic brake distribution / Brake Assist	S/S/S
Passenger front airbag	S	Electronic stability control (ESC, VSC, DSC, ESP, VSA)	S#
Side airbags, front seats - chest protection	S	3 point seat belt for all forward-facing seats	S
Side airbags, front seats - head protection	S	Whiplash rating (RCAR protocol)	Pending
Side airbags, rear seats - head protection	S	Intelligent seat belt reminder - driver	S
Driver knee airbag	X	Intelligent seat belt reminder - front passenger	S
Seat belt pretensioners (Front/rear outboard)	S/X	Intelligent seat belt reminder - rear seats	S

Key:

S = standard on all variants

O = optional on base variant. May be standard on higher variants

V= not available on base variant but standard or optional on higher variants

X = not available on any variant

ESC required by ANCAP for 5 star rating from 2008