

# Crash Test Results

## New Car Safety

### NISSAN LEAF

From 2011

Front+side+head airbags



**ANCAP**

Rated ★★★★★

**Occupant Protection**

**Occupant Protection Score** 33.62 out of 37

Variant: RHD 5 door hatch Eng: Electric 80kW

Kerb mass 1530 kg

Category: CAR - MEDIUM

Vehicles built: 2011

Tested by Euro NCAP

**Important note:** The right-hand-drive European model was tested by Euro NCAP. Nissan Australia has confirmed that Nissan Leaf for Australia has the same safety specification as the tested vehicle.

#### Model History and Safety Features

The tested model of Nissan Leaf was introduced in Australia during 2011.

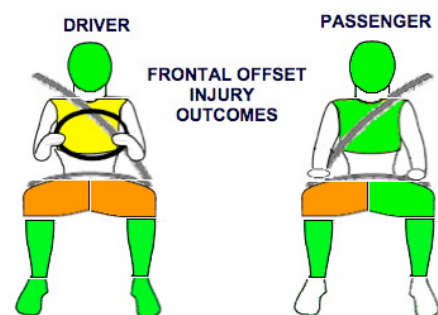
Dual front airbags, side airbags and head-protecting side curtains are standard equipment. Antilock brakes (ABS), electronic brakeforce distribution (EBD), emergency brake assist and electronic stability control (ESC) are also standard. Intelligent seat belt reminders are fitted to both front seats.

Pretensioners are fitted to the front seat belts to reduce slack in the event of a crash. A three point seat belt is fitted to the centre rear seat. This provides better protection than a two point (lap) seat belt.

#### OCCUPANT PROTECTION: 5 Stars

The Leaf scored 13.62 out of 16 in the offset crash test. The passenger compartment held its shape well. Protection from serious leg injury was marginal for the driver and front passenger.

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



#### Whiplash Protection



Offset crash test at 64km/h

#### FRONTAL OFFSET CRASH TEST

Body region scores out of 4 points each: Head/neck 4 pts, chest 3.62 pts, upper legs 2 pts, lower legs 4 pts.

The passenger compartment held its shape well in the offset crash test. The accelerator pedal moved rearwards by 72 mm and upwards 12 mm. The steering wheel hub moved 6mm forward, 66 mm upward and 8mm sideways. The front ("A") pillar moved 21 mm rearwards. All doors remained closed during the crash.

The airbag cushioned the head of the driver and contact was stable. Centre console and steering column components were a potential source of injury for the driver's knees. The passenger's head was cushioned by the airbag. The center console was a potential source of injury for the passenger's right knee.

#### SIDE IMPACT CRASH TEST

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

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

#### PEDESTRIAN PROTECTION: ACCEPTABLE

Protection provided by the bumper to pedestrians' legs was predominantly good. In most areas where a child's head might strike, the bonnet offered good protection. In those areas likely to be struck by an adult's head, protection was predominantly good.

| PEDESTRIAN PROTECTION    | Child head impacts | 8.24  |
|--------------------------|--------------------|-------|
| <b>ACCEPTABLE</b>        | Adult head impacts | 6.99  |
|                          | Upper leg impacts  | 3.00  |
|                          | Lower leg impacts  | 5.14  |
|                          | Total (out of 36)  | 23.38 |
| Tested by Euro NCAP v5.2 |                    |       |



PASS  
MARGINAL  
FAIL

**JUNE 2011**

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leaf11.doc

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**ANCAP**

Crash testing for safety

AUSTRALASIAN  
NEW CAR ASSESSMENT  
PROGRAM

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# TECHNICAL DATA - NISSAN LEAF - From 2011

## INJURY MEASUREMENTS

| Body region                    | Offset Crash Test at 64km/h<br>(v5.2) |            | Side Impact Crash<br>Test at 50km/h<br>(v5.2) |
|--------------------------------|---------------------------------------|------------|-----------------------------------------------|
|                                | Driver                                | Passenger  | Driver                                        |
| <b>Head</b> HIC                | 187                                   | 204        | 34                                            |
| Acceleration (g for 3ms)       | 32.6                                  | 39.5       | 20.6                                          |
| <b>Neck</b> - Shear (kN)       | 0.27                                  | 0.50       | -                                             |
| Tension (kN)                   | 1.13                                  | 1.00       | -                                             |
| Extension (Nm)                 | 15.5                                  | 12.0       | -                                             |
| <b>Chest</b> Accln (g for 3ms) | -                                     | -          | -                                             |
| Compression (mm)               | 24.64                                 | 20.44      | 14.36                                         |
| Viscous criterion (m/s)        | 0.06                                  | 0.10       | 0.07                                          |
| <b>Abdomen</b> - Force (kN)    | -                                     | -          | 0.460                                         |
| <b>Pelvis</b> - Force (kN)     | -                                     | -          | 1.300                                         |
| <b>Upper legs</b> Force (kN)   | Left                                  | 0.37       | 0.80                                          |
|                                | Right                                 | 0.19       | 2.20                                          |
|                                | Left                                  | 0.00       | 2.50                                          |
|                                | Right                                 | 0.00       | 2.60                                          |
| <b>Lower legs</b> Force (kN)   | Left                                  | 1.61       | 1.37                                          |
|                                | Right                                 | 1.04       | 1.40                                          |
| Index (Upper/Low)              | Left                                  | 0.29 /0.14 | 0.20 /0.21                                    |
|                                | Right                                 | 0.29 /0.24 | 0.21/0.19                                     |

### Bonus points (maximum 5)

Pole Test: 2 pts

Seat belt reminders: 2 (see table below for details)

### Modifiers - deductions from offset test scores

|                                           |                             |
|-------------------------------------------|-----------------------------|
| Head                                      | No deduction                |
| Chest                                     | No deduction                |
| Driver Upper leg Variable & conc. loading | 2 pt deduction Left & Right |
| Passn Upper leg Variable & conc. loading  | 2 pt deduction Right        |
| Lower leg                                 | No deduction                |
| Foot score                                | Score 4 points              |

### 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 centre rear seat belt                                        | S     |
| Side airbags, front seats - head protection   | S   | Whiplash protection (RCAR protocol)                                  | Good  |
| 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                          | X     |

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