

# Crash Test Results

## New Car Safety

### SMART FORTWO (LHD)

2008 on

Dual front airbags\*



Offset crash test at 64km/h

#### FRONTAL OFFSET CRASH TEST (v4.1)

Body region scores out of 4 points each: Head/neck 4 pts, chest 3.13 pts, upper legs 1.72 pts, lower legs 4 pts.

The passenger compartment held its shape well in the offset crash test. The brake pedal moved rearwards by 14 mm. The accelerator pedal moved downwards 15mm. The steering wheel hub moved 66mm forwards, 26 mm upward and 14 mm sideways. The front ("A") pillar moved 8 mm rearwards. All doors remained closed during the crash. After the crash both doors could be opened with normal effort.


The airbag cushioned the head of the driver and contact was stable. Steering column and dash components were a potential source of injury for the driver's knees. The passenger's head was cushioned by the airbag. Dash components were a potential source of injury for the passenger's knees.

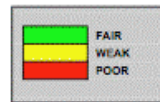
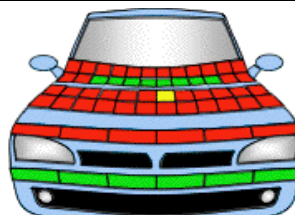
#### SIDE IMPACT CRASH TEST (v4.1)

Body region scores out of 4 points each: Head 3.14 pts, chest 2.84 pts, abdomen 4 pts, pelvis 4 pts.

The vehicle tested by Euro NCAP was not eligible for an optional pole impact test, since it did not have head-protecting side airbags. This can earn an extra 2 points. The Australasian fortwo has standard head-protecting side airbags and so can be expected to offer better protection in side impacts than the tested European model.

#### PEDESTRIAN PROTECTION RATING (v4.1)

PEDESTRIAN PROTECTION		
 <b>ANCAP</b> Rated ★ ★ ★ ★ ★ Tested by Euro NCAP	Child head impacts	4
	Adult head impacts	0.01
	Upper leg impacts	Zero
	Lower leg impacts	6
	Total (out of 36)	10.01



Occupant Protection Score 27.83 out of 37

\* Australasian model has head-protecting side airbags as standard

Variant: 3 door hatch

Eng: 1 Litre

Kerb weight: 750 kg

Category: Light car

Vehicles built: 2007

Tested by Euro NCAP

**Important note:** The *left-hand-drive* European model was tested by Euro NCAP. Australasian specifications may vary and therefore models sold in Australasia might provide different levels of protection to those described on this page. The Australasian model has side airbags standard and should offer better side protection than the model tested by Euro NCAP.

#### Model History and Safety Features

The tested model of Smart fortwo will be launched in Australia and New Zealand early in 2008.

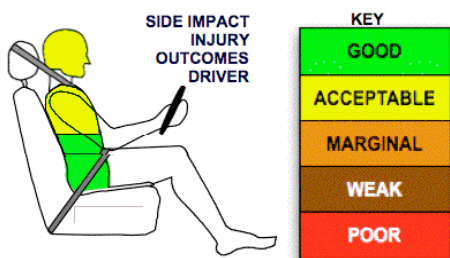
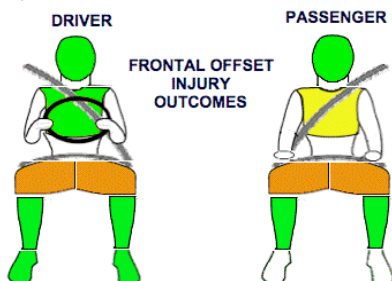
Dual front airbags and side airbags with head-protection are standard equipment in Australasia. Antilock brakes (ABS), electronic brake distribution (EBD) and electronic stability control (ESC) are also standard. An intelligent seat belt reminder is fitted to the driver seat.

The front seat belt buckles are mounted on the seats and the upper anchorages are adjustable. These features improve the fit of the seat belt. Pretensioners are fitted to the front seat belts to reduce slack in the event of a crash.

#### OCCUPANT PROTECTION: 4 Stars

The fortwo scored 12.85 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 passenger.

The vehicle scored 13.98 out of 16 in the side impact crash test. There was a slight risk of serious chest and head injury for the driver.



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 fortwo08.doc  
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**ANCAP**

Crash testing for safety

AUSTRALASIAN  
 NEW CAR ASSESSMENT  
 PROGRAM

www.ancap.com.au

# TECHNICAL DATA - SMART FORTWO (LHD) - 2008 on

## INJURY MEASUREMENTS

Body region	Offset Crash Test at 64km/h (v4.1)		Side Impact Crash Test at 50km/h (v4.1)
	Driver	Passenger	Driver
<b>Head</b> HIC	353	445	356
Acceleration (g for 3ms)	48.5	51.1	75.5
<b>Neck</b> - Shear (kN)	0.30	0.69	-
Tension (kN)	1.40	1.57	-
Extension (Nm)	19.5	15.9	-
<b>Chest</b> Accln (g for 3ms)	-	-	-
Compression (mm)	20.13	28.07	27.58
Viscous criterion (m/s)	0.07	0.12	0.23
<b>Abdomen</b> - Force (kN)	-	-	0.970
<b>Pelvis</b> - Force (kN)	-	-	1.500
<b>Upper legs</b> Force (kN)			
Left	2.69	0.15	
Right	3.02	0.37	
Knee displ (mm)			
Left	0.00	0.00	
Right	6.63	0.00	
<b>Lower legs</b> Force (kN)			
Left	1.95	1.35	
Right	1.58	1.31	
Index (Upper/Low)			
Left	0.35 /0.24	0.33 /0.16	
Right	0.33 /0.16	0.37/0.15	

### Bonus points (maximum 5)

Pole Test: Not eligible due to a lack of head-protecting side airbags on vehicle tested by Euro NCAP.

Seat belt reminders: 1 (see table below for details)

### Modifiers - deductions from offset test scores

Head	No deduction
Chest	No deduction
Upper leg Variable & conc. loading for driver & passenger	2 pt deduction Left & Right
Lower leg	No deduction
Foot score	Score 4 points

### Modifiers - deductions from side impact test scores

Chest Backplate load	0.5 pt deduction
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### 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	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	Not applic.
Side airbags, front seats - head protection	S *	Active head restraints - front seats	X
Side airbags, rear seats - head protection	Not applic.	Intelligent seat belt reminder - driver	S
Driver knee airbag	X	Intelligent seat belt reminder - front passenger	X
Front seat belt pretensioners	S	Rear seat belt status indicator	Not applic.

\* Vehicle tested by Euro NCAP did not have side airbags. These are standard in Australia.

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

