

Crash Tests

New Car Safety

SMART FORFOUR

2005 on

Front+side airbags

Occupant Protection



Occupant Protection Score 25.83 out of 37

Variant: Pulse

Eng: 1.3 litre

Kerb weight: 970 kg

Category: LIGHT CAR

Vehicles built: 2005

Test by Euro NCAP

Important note: The 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.

Model History and Safety Features

The Smart forfour was introduced in Australia during 2003. The tested model was built in 2005.

Dual front airbags, ABS/EBD brakes and electronic stability control are standard. Side (thorax) airbags are optional and were on the tested vehicle. Head-protection side airbags are optional in Europe but were not on the tested vehicle. An advanced seat belt reminder is fitted to the driver's seat.

Pre-tensioners are fitted to the front seat belts to reduce slack in the event of a crash.

OCCUPANT PROTECTION: 4 Stars

The Smart forfour scored 11.99 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 there was a slight risk of serious chest injury.

The vehicle scored 12.84 out of 16 in the side impact crash test. There was a moderate risk of serious chest injury for the driver.

FRONTAL OFFSET CRASH TEST

Body region scores out of 4 points each: Head/neck 4pts, chest 2.75pts, upper legs 2pts, lower legs 3.24pts.

The passenger compartment held its shape well in the offset crash test. The brake pedal moved rearwards by 112 mm. The steering wheel hub moved forwards 18mm, upwards 19 mm and sideways 16 mm. The front ("A") pillar moved 8 mm rearwards. All doors remained closed during the crash. After the crash all doors could be opened with normal effort.

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

SIDE IMPACT CRASH TEST

Body region scores out of 4 points each: Head 4pts, chest 1.80pts, abdomen 3.04pts, pelvis 4pts.

The vehicle was not eligible for a Pole Impact Test since it did not have head-protecting side airbags. This test can earn eligible vehicles an extra two points..



Offset crash test at 64km/h

INJURY MEASUREMENTS

Refer to the information sheet "How the test are done"	Offset Crash Test at 64km/h (v4.1)		Side Impact Crash Test at 50km/h (v4.1)
	Driver	Passn	Driver
Head HIC	464	212	193
Acceleration (g for 3ms)	58.6	34.0	64.9
Neck - Shear (kN)	0.41	0.55	-
Tension (kN)	2.19	0.86	-
Extension (Nm)	16.8	12.6	-
Chest Accln (g for 3ms)	-	-	-
Compression (mm)	30.77	27.44	32.26
Viscous criterion (m/s)	0.11	0.18	0.42
Abdomen - Force (kN)	-	-	1.360
Pelvis - Force (kN)	-	-	2.450
Upper legs Force			
Left (kN)	1.24	1.29	
Right (kN)	0.96	3.31	
Knee displ (mm)			
Left	1.60	1.40	
Right	0.37	3.43	
Lower legs Force			
Left (kN)	1.51	1.48	
Right (kN)	1.86	1.98	
Index (Upper/Low)			
Left	0.57 / 0.40	0.32 / 0.17	
Right	0.47 / 0.40	.21 / .22	

Bonus points (maximum 5)

Pole Test: Not eligible Seat belt reminders: 1

Modifiers - offset test scores

Head	No deduction
Chest	No deduction
Upper leg Variable & conc. loading for driver and passenger	2 pt deduction L & R
Lower leg	No deduction
Foot score	Score 3.52 points

Modifiers - side impact test scores

Chest Backplate load 0.15pt deduction

PEDESTRIAN PROTECTION RATING (v4.1)

Child head impacts	Zero	Upper leg impacts	2
Adult head impacts	4.78	Lower leg impacts	Zero
Total (out of 36)	6.78		



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