

# Crash Test Results

## New Car Safety

### HYUNDAI SONATA

2006 on

Front+side+head 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 2.36 pts, upper legs 0.22 pts, lower legs 2.44 pts.

The passenger compartment held its shape reasonably well in the offset crash test. The clutch pedal moved rearwards by 139 mm and downwards 16mm. The steering wheel hub moved 44mm rearward, 42mm downward and 1mm sideways. The front ("A") pillar moved 59 mm rearwards. All doors remained closed during the crash. After the crash tools were required to open the driver's door.


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 and glove box components were a knee injury hazard for the passenger.

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

Body region scores out of 4 points each: Head 4 pts, chest 2.3 pts, abdomen 3.2 pts, pelvis 4 pts.

The vehicle was eligible for an optional pole impact test, since it had head-protecting side airbags and scored four points for the head in the side impact test. The manufacturer decided to go ahead with the pole test and the vehicle earned a further two points.

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

PEDESTRIAN PROTECTION		
 <b>ANCAP</b> Rated ★ ★ ★ ★	Child head impacts	3.86
	Adult head impacts	8
	Upper leg impacts	Zero
	Lower leg impacts	Zero
	Total (out of 36)	11.86

#### Occupant Protection Score 26.52 out of 37

Variant: GLS

Eng: 2.4 litre

Kerb weight: 1490 kg

Category: MEDIUM CAR/MPV

Vehicles built: 2006

**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

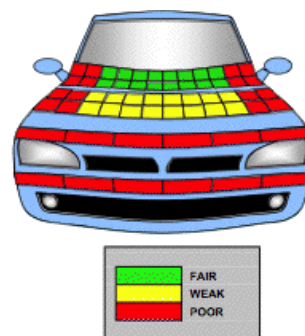
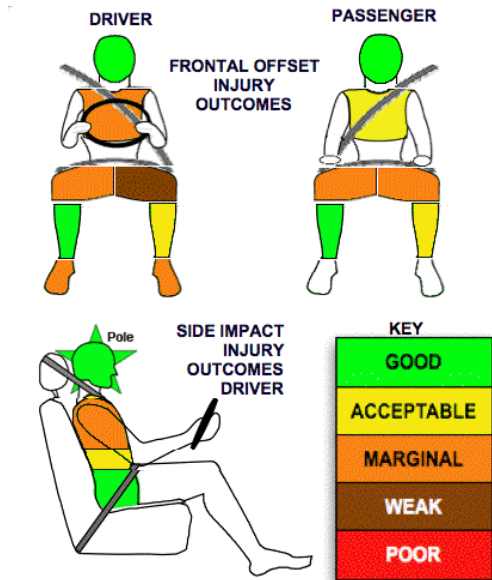
The tested model of Hyundai Sonata was introduced in Australia during 2005.

Dual front airbags, side airbags and head-protecting side curtains are standard equipment. Antilock brakes (ABS) with electronic brake distribution (EBD) are also standard. Electronic stability control (ESC) is optional on the SLX variant and standard on other Australian and all New Zealand variants. Intelligent seat belt reminders are fitted to both front seats.

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. 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: 4 Stars

The Hyundai Sonata scored 9.02 out of 16 in the offset crash test. The passenger compartment held its shape reasonably well, except for firewall and footwell deformation. Protection from serious chest, leg and foot injury was marginal for the driver. The vehicle scored 13.5 out of 16 in the side impact crash test. There was a moderate risk of serious chest injury for the driver. A further two points were earned in the optional pole test.



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**ANCAP**

Crash testing for safety

AUSTRALASIAN  
NEW CAR ASSESSMENT  
PROGRAM

# TECHNICAL DATA - HYUNDAI SONATA - 2006 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 HIC</b>	202	440	51
Acceleration (g for 3ms)	37.5	54.5	22.9
<b>Neck - Shear (kN)</b>	0.54	0.75	-
Tension (kN)	0.96	0.91	-
Extension (Nm)	12.7	15.2	-
<b>Chest Accln (g for 3ms)</b>	-	-	-
Compression (mm)	33.47	28.66	29.50
Viscous criterion (m/s)	0.12	0.12	0.34
<b>Abdomen - Force (kN)</b>	-	-	1.300
<b>Pelvis - Force (kN)</b>	-	-	1.430
<b>Upper legs Force</b>			
Left (kN)	3.60	0.00	
Right (kN)	3.30	4.17	
<b>Knee displ (mm)</b>			
Left	10.00	0.00	
Right	2.00	6.30	
<b>Lower legs Force</b>			
Left (kN)	2.52	2.17	
Right (kN)	0.86	1.64	
<b>Index (Upper/Low)</b>			
Left	0.57 /0.48	0.30 /0.20	
Right	0.34 /0.36	0.36/0.23	

### 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

Upper leg Variable & conc. loading 2 pt deduction Left & Right for driver and passenger

Lower leg No deduction

Foot score Pedal rearward Score 2.44 points



### Modifiers - deductions from side impact test scores

Chest T12 loads 0.2 pt 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	S/S
Passenger front airbag	S	Electronic stability control (ESC, VSC, DSC, ESP, VSA)	O (NZ S)
Side airbags, front seats - chest protection	S	3 point centre rear seat belt	S
Side airbags, front seats - head protection	S	Active head restraints - front seats	X (NZ S)
Side airbags, rear seats - head protection	S	Intelligent seat belt reminder - driver	S
Driver knee airbag	X	Intelligent seat belt reminder - front passenger	S
Front seat belt pretensioners	S	Rear seat belt status indicator	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