

Crash Tests

New Car Safety

Hyundai Elantra

12/2006 on 06/2007 - Dual Frontal

Overall Evaluation



Overall Score

Variant: SX

18.81 out of 37

Engine: 2 litre

Category: Small Car

Model History and Safety Features

The tested model of Hyundai Elantra was introduced in Australia during 2006. This rating applies to Elantras built before July 2007.

Dual front airbags and antilock brakes (ABS) with electronic brake distribution (EBD) are standard. Side airbags and head-protecting side curtains are optional on the SX and standard on the SLX and Elite in Australia. They are standard on all variants in New Zealand. Electronic stability control (ESC) is standard on the Elite and optional on other variants in Australia. It is only available on the Elite in New Zealand.

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.

Overall Evaluation: 3

3 stars. The Elantra scored 7.81 out of 16 in the offset crash test. The passenger compartment held its shape well. Protection from serious leg injury was poor for the driver. Chest protection was marginal.

The vehicle scored 10.99 out of 16 in the side impact crash test. There was a moderate risk of serious chest and abdomen injury for the driver.

Frontal Offset Crash Test

Body region scores out of 4 points each: Head/neck 4 pts, chest 2.21 pts, upper legs zero pts, lower legs 1.6 pts.

The passenger compartment held its shape well in the offset crash test. The accelerator pedal moved rearwards by 65 mm and downwards 12mm. The steering wheel hub moved 22 mm rearward, 5mm downward and 48 mm sideways. The front ("A") pillar moved 24 mm rearwards. All doors remained closed during the crash. After the crash the driver's door opened with high manual 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 and contact was stable.

Side Impact Crash Test

Body region scores out of 4 points each: Head 4 pts, chest 1.35 pts, abdomen 2.64 pts, pelvis 4 pts.

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.

Pedestrian rating (v4.1)



Child head impacts	4.5
Adult head impacts	4
Upper leg impacts	Zero
Lower leg impacts	Zero
Total (out of 36)	8.50

Offset crash test at 64km/hr



Injury Measurements

Refer to the information sheet 'How the tests are done'	Offset Crash Test at 64km/h (v4.1)		Side Impact Crash Test aa 50km/h (v4.1) Driver
	Driver	Passn	
Head			
- HIC	471	388	90
- Acceleration (g for 3ms)	59.8	59.6	36.6
Neck			
- Shear (kN)	0.45	0.45	
- Tension (kN)	1.75	0.73	
- Extension (Nm)	29.6	41.6	
Chest			
- Acceleration (g for 3ms)	46.7	30.9	
- Compression (mm)	34.5	27.1	24.1
- Viscous Criterion (m/s)	0.16	0.1	0.43
Abdomen			
- Force (kN)			1.51
Pelvis			
- Force (kN)			2.53
Upper Legs Force (kN)			
- Left	3.44	0.46	
- Right	3.76	3.6	
Knee Displacement (kN)			
- Left	13.48	0	
- Right	2.37	0.12	
Lower Legs Force (kN)			
- Left	1.51	1.9	
- Right	2.23	3.3	
Index (Upper Lower)			
- Left	0.68 0.3	0.3 0.31	
- Right	0.29 0.94	0.59 0.21	

Bonus points (maximum 5)

Pole Test: Not eligible - no head protecting side airbags

Seat Belt Reminders: None

Modifiers for offset test scores

Head	No deduction
Chest	No deduction
Upper leg	Concentrated loading
Lower leg	1 pt deduction L & R
Foot score	No deduction
Structure	Score 4 pts
	measured relative to the driver's seat.

Modifiers for side impact test scores

Head		
Chest	Backplate load	2 pt deduction
Upper leg		
Lower leg		
Foot score		
Structure	Door opened during crash	1 pt deduction



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