# ANCAP Safety Rating: HYUNDAI SONATA (2015 - onward)



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Frontal offset test at 64km/h

## This ANCAP safety rating applies to:

Make / Model	Hyundai Sonata	
Year Range	2015 - onward	
Variant(s)*	All petrol variants	
Vehicle Type	Medium Car	

The tested model of Hyundai Sonata was introduced in Australia and New Zealand in 2015. This ANCAP safety rating applies to all petrol variants.

Dual frontal, side chest, and side head-protecting airbags (curtains) for the 1<sup>st</sup> and 2<sup>nd</sup> row are standard. Antilock brakes (ABS), electronic brake distribution (EBD) and electronic stability control (ESC), hill launch assist and reversing collision avoidance are also standard. Advanced seat belt reminders are fitted to all seats.

In the frontal offset crash test, driver leg protection was marginal and chest protection was acceptable; passenger protection was good. Driver protection was good in the side impact crash test. Head protection in the side pole test was also good.

## Injury Outcomes.



Side Impact & Pole# Driver



GOOD ACCEPTABLE MARGINAL POOR Test Results Summary.

Airbags	Dual Frontal, Side, Head
Frontal Offset Test	12.84 (out of 16)
Side Impact Test	16.00 (out of 16)
Pole Test	2 (out of 2)
Whiplash Protection	Good
Pedestrian Protection	Acceptable
ESC	Standard
Seat Belt Reminders	<b>3</b> (out of 3)
Overall Score	33.84 (out of 37)
ANCAP Safety Rating	****
Rating Year^	2015

## **Occupant Protection.**

#### **Frontal Offset Test**

Each body region is scored out of 4 points

Head / neck:	4.00 points
Chest:	3.69 points
Upper legs:	4.00 points
Lower legs:	1.16 points
Lower legs.	1.10 pointo

The passenger compartment held its shape well in the frontal offset test. Pedal and steering wheel displacements were well controlled. Driver and passenger contact with the airbags was stable. All doors remained closed during the crash. After the crash all doors could be opened with normal effort.

### Side Impact Test

Each body region is scored out of 4 points

Head:	4.00 points
Chest:	4.00 points
Abdomen:	4.00 points
Pelvis:	4.00 points

Good protection was provided for the driver in the side impact test. The side airbags performed well.

#### **Pole Test**

Scored out of 2 points Score: 2.00 points

The vehicle was eligible for a pole test because it has side curtain airbags. The vehicle scored the maximum 2 points for head protection in this test.

### Whiplash Protection Test

Whiplash protection is assessed to the RCAR Protocol

Geometric test:	Good
Dynamic test:	Good
Overall whiplash rating:	Good





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# Head protection only.

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## Pedestrian Protection.

#### Pedestrian Test

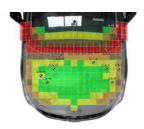
Scored out of 36 points

9.31 points
6.42 points
0.00 points
6.00 points

This vehicle scored 21.73 out of 36 points (Acceptable). Some points have been gained in the central area of the bonnet and on the bumper. Improvements could be made to the radiator support structure that would result in better performance for this vehicle in the upper leg test (v6).

Child and adult head impact

Adult leg impact (upper and full legforms)





## Score Deductions.

Deductions from fronta	al offset test scores
Head:	No deduction
Chest:	No deduction
Upper leg:	No deduction
Lower leg:	No deduction
Feet:	No deduction

Deductions from side impact test score Chest: No deduction

Deductions from pole test score Head: No deduction

## Safety Features & Technologies.

Descriptions of each of these safety features and safety assist technologies (SAT) and detail on fitting requirements for each star rating level can be found at **ancap.com.au**.

Safety Feature / Safety Assist Technology	Availability
Seat belts (three-point) for all forward-facing seats	S
Seat belt pretensioners (front)	S
Seat belt pretensioners (rear outboard)	Х
Intelligent seat belt reminder (driver)	S
Intelligent seat belt reminder (front passenger)	S
Intelligent seat belt reminder (2 <sup>nd</sup> row seats)	S
Airbag - Front (driver)	S
Airbag - Front (passenger)	S
Airbag - Side, chest protection (front seats)	S
Airbag - Side, chest protection (2 <sup>nd</sup> row seats)	х
Airbag - Side, head protection (front seats)	S
Airbag - Side, head protection (2 <sup>nd</sup> row seats)	S
Airbag - Side, head protection (3 <sup>rd</sup> row seats)	N/A
Airbag - Knee (driver)	Х
Airbag - Knee (front passenger)	Х
Head restraints for all seats	S
Adaptive cruise control (ACC)	Х
Antilock braking system (ABS)	S
Autonomous emergency braking (AEB)	Х
Electronic brakeforce distribution (EBD)	S
Electronic stability control (ESC)	S
Emergency brake assist (EBA)	S
Lane support system (LSS)	Х
Daytime running lights (DRL)	S
Reversing collision avoidance	S
Tyre pressure monitoring system (TPMS)	Е
Hill launch assist	S

These specifications are subject to change. Please check with the manufacturer for the latest specifications.

**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.

E = Available in Europe / USA but not available on any Australasian variant.

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## Injury Values & Measurements.

Body Region	Frontal offset test at 64 km/h (v5.1)		Side impact test at 50 km/h (v5.1)
	Driver	Passenger	Driver
Head		<u> </u>	
HIC	207.00	311.00	27.00
Acceleration (g for 3ms)	36.40	42.90	16.90
Neck			
Shear (kN)	0.57	0.39	-
Tension (kN)	1.10	0.53	-
Extension (Nm)	15.30	21.00	-
Chest			
Acceleration (g for 3ms)	42.8	35.0	-
Compression (mm)	24.20	16.30	12.10
Viscous criterion (m/s)	0.10	0.04	0.04
Abdomen			
Force (kN)	-	-	0.37
Pelvis			
Force (kN)	-	-	1.48
Upper legs			
Femur force left (kN)	0.29	0.15	
Femur force right (kN)	0.26	0.13	
Knee displacement left (mm)	0.71	0.39	
Knee displacement right (mm)	0.15	0.04	
Lower legs			
Force left (kN)	3.36	1.63	
Force right (kN)	1.83	1.97	
Index (upper / lower) left	0.69 / 1.04	0.30 / 0.17	
Index (upper / lower) right	0.48 / 0.30	0.40 / 0.14	
Intrusion Measurements*			
Steering column			
Forward (mm)	40		
Downward (mm)	16		
Sideways (mm)	3		
Pedals	-		
Park Brake - rearward (mm)	20		
Brake - upward (mm)	28		
A-Pillar			
Rearward (mm)	27		

+ Steering column and pedal movements are measured relative to the driver's seat.

\* ANCAP safety ratings do not automatically extend to variants that have different body styles, engine configurations, driven wheels or occupant restraint systems (e.g. fewer airbags). In these cases, ANCAP considers technical evidence submitted by manufacturers before deciding on extending a rating to additional variants of a model. For further information about the application of ANCAP safety ratings to model variants, see the ANCAP Variant Policy.

^ The Rating Year denotes the year requirements against which a vehicle has been assessed. The Rating Year is determined by ANCAP and may be based on the year in which a new vehicle model is first launched into the Australian and/or New Zealand markets; the year in which the vehicle was tested (if tested by Euro NCAP); or, for vehicles which hold an existing ANCAP safety rating, the year in which the rating was updated (or earlier applicable year).

### Assessment Details.

Tested Make / Model	Hyundai Sonata GDi
Tested vehicle(s) Built	2014
Tested Body Type	Sedan
Tested Vehicle Kerb Weight	1520 kg
Tested Vehicle Engine	2.4 litre petrol
Tested By	ANCAP
Assessed By	ANCAP
Document Reference	SONATA15
Rating Published	5 February 2015
Rating Updated	n/a

