

ANCAP Safety Rating

HYUNDAI IONIQ (February 2017 - onwards)



Hyundai Ioniq

This ANCAP safety rating applies to:

Make / Model	Hyundai Ioniq
Year Range	February 2017 - onwards
Variant(s)*	All New Zealand variants
Vehicle Type	Small car

The tested model of Hyundai Ioniq was introduced in New Zealand in February 2017. This ANCAP safety rating is based on tests conducted by Euro NCAP and applies to all New Zealand variants.

Dual frontal, side chest, side head-protecting airbags (curtains) and a driver knee airbag are standard. Autonomous emergency braking (AEB), lane support systems (LSS) and adaptive cruise control (ACC) are standard. A full list of safety features and technologies can be viewed within the *Safety Features & Technologies* table on page 2 of this report.

Injury Outcomes.

Full Width Frontal

Driver Rear Passenger Driver Front Passenger



Side Impact

Driver



Pole

Driver



Whiplash Protection

Rear Front



Test Results Summary.

Airbags	Dual Frontal, Side, Head, Knee
Adult Occupant Protection	91% (34.92 out of 38)
- Full Width Frontal Test#	6.16 (out of 8)
- Frontal Offset Test#	7.45 (out of 8)
- Side Impact Test#	8.00 (out of 8)
- Pole Test#	8.00 (out of 8)
- Whiplash Protection Test	2.31 (out of 3)
- AEB (City)	3.00 (out of 3)
Child Occupant Protection	80% (39.39 out of 49)
Safety Assist	82% (9.93 out of 12)
- Speed Assistance System	1.50 (out of 3)
- Seat Belt Reminders	3.00 (out of 3)
- Lane Support System	2.70 (out of 3)
- AEB (Interurban)	2.73 (out of 3)
Pedestrian Protection	70% (29.78 out of 42)
ANCAP Safety Rating	★★★★★
Rating Year^	2016

Scaled scores. Total test score out of 16.00 points.

Adult Occupant Protection.

Full Width Frontal Test

Each body region is scored out of 4 points

Driver		Rear Passenger	
Head:	4.00 points	Head:	4.00 points
Neck:	4.00 points	Neck:	3.99 points
Chest:	2.98 points	Chest:	1.65 points
Upper legs:	4.00 points	Upper legs:	0.00 points

The pelvis of the rear passenger dummy slipped under the lap part of the seatbelt and protection of this body region was rated as poor. Chest protection was marginal for this occupant.

Frontal Offset Test

Each body region is scored out of 4 points

Driver / Front Passenger (lesser of each)

Head / neck:	4.00 points
Chest:	3.14 points
Upper legs:	4.00 points
Lower legs:	3.76 points

The passenger compartment held its shape well in the frontal offset test. Chest and leg protection was acceptable for the driver and passenger in the frontal offset test.

Side Impact Test

Pole Test

Each body region is scored out of 4 points

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

Good protection was provided for the driver in the side impact and side pole tests.

Whiplash Protection

Front / Rear:	1.69 points
Rear:	0.63 points
AEB (City):	3.00 points

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Child Occupant Protection.

Crash Test Performance

6 year old child: 9.34 points
10 year old child: 11.05 points

Child Safety Features & Child Seat Installation

Safety features: 7.00 points
Installation check: 12.00 points

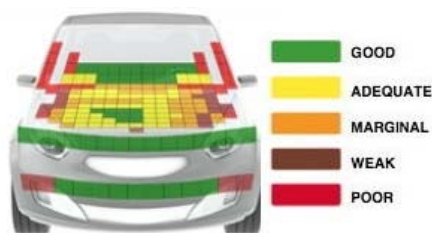
NOTE: The child restraints tested by Euro NCAP are relevant to the European market. For Australasian consumers, this information should be used as a guide to vehicle features only. For more detailed information about Australian child restraints visit childcarseats.com.au.

Pedestrian Protection.

Scored out of 42 points

Adult & child head impacts: 13.68 points
Upper leg impacts: 6.00 points
Lower leg impacts: 5.08 points
AEB (VRU): 5.03 points

This vehicle scored 29.78 out of 42 points. The bonnet provided predominantly adequate or marginal protection for the head of a struck pedestrian, with poor results recorded on the stiff windscreen pillars. The protection provided to pedestrians' legs by the bumper was good at most test locations while protection of the pelvis was good at all points tested. The autonomous emergency braking system (AEB) reacts when pedestrians are in danger of being struck and the system performed well in testing. (Euro NCAP v8.3)



Score Deductions.

Deductions from full width frontal test scores

Neck: No deductions
Head: No deductions
Chest: No deductions
Upper legs / pelvis: -4.00 points
(submarining of rear dummy)
Overall: No deductions

Deductions from frontal offset test scores

Head / neck: No deductions
Chest: No deductions
Upper legs: No deductions
Lower legs: No deductions
Overall: No deductions

Deductions from side impact test score

Head / neck: No deductions
Chest: No deductions
Abdomen: No deductions
Pelvis: No deductions
Overall: No deductions

Deductions from pole test score

Head / neck: No deductions
Chest: No deductions
Abdomen: No deductions
Pelvis: No deductions
Overall: No deductions

Safety Features & Technologies.

Descriptions of each of these safety features and safety assist technologies (SAT) can be found at ancap.com.au.

Safety Feature / Safety Assist Technology	Availability
Seat belts (three-point, lap / sash) for all forward-facing seats	S
Seat belt pretensioners (front)	S
Seat belt pretensioners (rear outboard)	S
Intelligent seat belt reminder (driver)	S
Intelligent seat belt reminder (front passenger)	S
Intelligent seat belt reminder (2 nd row seats)	S
Airbag - Frontal (driver)	S
Airbag - Frontal (passenger)	S
Airbag - Side, chest protection (front seats)	S
Airbag - Side, chest protection (2 nd row seats)	X
Airbag - Side, head protection (front seats)	S
Airbag - Side, head protection (2 nd row seats)	S
Airbag - Knee (driver)	S
Airbag - Knee (front passenger)	X
Head restraints for all seats	S
Adaptive cruise control (ACC)	S
Antilock braking system (ABS)	S
Autonomous emergency braking (AEB)	
- City	S
- Interurban	S
- Vulnerable road user	S
Automatic headlights	S
Automatic high beam	X
Blind spot monitoring (BSM)	V
Daytime running lights (DRL)	S
Electronic brakeforce distribution (EBD)	S
Electronic stability control (ESC)	S
Emergency brake assist (EBA)	S
Emergency stop signal	S
Hill launch assist	S
Lane support system (LSS)	S
Rear cross traffic alert (RCTA)	V
Reversing collision avoidance	S
Speed assistance - automatic / intelligent speed limiting (ISA)	X
Speed assistance - manual speed limiting	S
Speed assistance - speed sign recognition & warning	X
Tyre pressure monitoring system (TPMS)	S

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 but not available on any Australasian variant.

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

Safety Assist.

Speed Assistance System (SAS)

Scored 1.50 out of 3 points

Speed information:	Not available
Speed assistance (manual):	Pass
Speed assistance (automatic / intelligent):	Not available

AEB (Interurban)

Scored 2.73 out of 3.00 points

Autonomous emergency braking (AEB):	1.50 out of 1.50
Forward collision warning (FCW):	0.98 out of 1.00
Human machine interface (HMI):	0.25 out of 0.50

Seat Belt Reminder (SBR)

Scored 3.00 out of 3.00 points

Driver and passenger:	Pass
Rear:	Pass

Lane Support Systems (LSS)

Scored 2.70 out of 3.00 points

Lane keep assist (LKA):	1.0 out of 1.0
Land departure warning (LDW):	1.5 out of 1.5
Human machine interface (HMI):	0.2 out of 0.5

The Hyundai Ioniq is fitted with a seatbelt reminder system for front and rear passengers and a driver-set speed limiter. A lane support system is fitted that warns the driver when the car is drifting over a lane marking and gently steers the car away from the lane edge. The autonomous emergency braking system operates at highway speeds and performed well in testing, managing to avoid collision in many of the test scenarios.

Approaching a stationary vehicle:

16.96 out of 18.00 points for Forward Collision Warning (FCW)



Approaching a slow moving vehicle:

11.00 out of 11.00 points for Autonomous Emergency Braking (AEB), 11.00 out of 11.00 for FCW



Approaching a braking vehicle with short headway:

2.00 out of 2.00 points for AEB, 2.00 out of 2.00 points for FCW



Approaching a braking vehicle with long headway:

2.00 out of 2.00 points for AEB, 2.00 out of 2.00 points for FCW



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Injury Values & Measurements.

Body Region	Frontal offset test at 64km/h (v7)		Full width frontal test at 50km/h (v1)		Side impact test at 50km/h (v7)	Oblique pole test at 32km/h (v7)
	Driver	Front Passenger	Driver	Rear Passenger	Driver	Driver
Head						
HIC	177.00	361.00	273.00	272.00	71.00	326.23
Acceleration (g for 3ms)	45.50	60.40	53.10	55.30	30.70	57.30
Neck						
Shear (kN)	0.52	0.53	0.54	0.94	-	-
Tension (kN)	1.39	0.67	1.02	1.71	-	-
Extension (Nm)	18.40	15.20	14.50	12.20	-	-
Chest						
Acceleration (g for 3ms)	-	-	-	-	-	-
Compression (mm)	26.28	22.33	24.12	32.08	10.19	21.41
Viscous criterion (m/s)	0.12	0.06	0.11	0.00	0.07	0.20
Abdomen						
Compression (mm)	-	-	-	-	12.91	26.13
Pelvis						
Force (kN)	-	-	-	-	0.87	1.34
Upper legs						
Femur force left (kN)	0.41	0.26	0.22	0.00		
Femur force right (kN)	0.73	0.47	0.41	0.53		
Knee displacement left (mm)	0.21	0.12	1.97	1.31		
Knee displacement right (mm)	0.92	0.07	1.13	1.96		
Lower legs						
Force left (kN)	2.08	2.35	-	-		
Force right (kN)	2.36	2.30	-	-		
Index (upper / lower) left	0.26 / 0.29	0.44 / 0.19	-	-		
Index (upper / lower) right	0.25 / 0.32	0.30 / 0.17	-	-		
Intrusion Measurements						
Steering column						
Forward (mm)	59	-	-	-		
Downward (mm)	24	-	-	-		
Sideways (mm)	5	-	-	-		
Pedals						
Brake - rearward (mm)	52	-	-	-		
Brake - upward (mm)	31	-	-	-		
A-Pillar						
Forward (mm)	0	-	-	-		

* **Model Variants:** 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.

^ **Rating Year:** 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 Ioniq
Tested Vehicle(s) Built	2016
Tested Body Type	5 door hatch
Tested Vehicle Kerb Weight	1370 kg
Tested Vehicle Engine	Hybrid
Tested By	Euro NCAP
Assessed By	Euro NCAP
Document Reference	IONIQ17
Document Created / Revised	17 March 2017
Rating Published	March 2017
Rating Updated	n/a



Frontal offset test at 64km/h