# **Crash Test Results**

**New Car Safety** 

# **HYUNDAI i30 (LHD)**

WITH ESC & SIDE CURTAIN AIRBAGS

May 2008 on Front+side+head airbags\*



Occupant Protection

#### Occupant Protection Score 32.54 out of 37

\* Safety equipment, as tested, not standard on all variants

Variant: GLS 5dr hatch Eng: 1.6

Kerb weight: 1290 kg Category: SMALL CAR Vehicles built: 2007 Tested by Euro NCAP

**Important note**: The *left-hand-drive* 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. Australasian i30s built from May 2008 have an upgraded knee impact zone and this assessment applies to the upgraded model *with inflatable side curtains*.

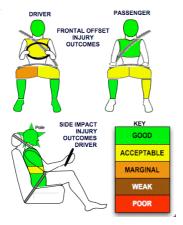
#### **Model History and Safety Features**

The tested model of Hyundai i30 was introduced in Australia during 2007.

Dual front airbags and antilock brakes (ABS) with electronic brake distribution (EBD) are standard on all variants. Side airbags, head-protecting side curtains and Electronic stability control (ESC) are standard on all New Zealand variants and the Australian SR variant. Side airbags and curtains are standard on the SLX and optional on the SX variants and ESC is optional on both. 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: 5 Stars**

The i30 scored 12.97 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. The vehicle scored 15.57 out of 16 in the side impact crash test. There was a slight risk of serious abdomen injury for the driver. A further two points were earned in the optional pole test.





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 3.04 pts, upper legs 2.17 pts, lower legs 3.76 pts.

The passenger compartment held its shape well in the offset crash test. The clutch pedal moved 97mm rearward and 25mm upwards. The steering wheel hub moved 1mm forward, 13mm downward and 4mm sideways. The front ("A") pillar moved 16 mm rearwards. All doors remained closed during the crash. High effort was required to open the driver's door after the crash.

The airbag cushioned the head of the driver and contact was stable. The side curtain also deployed. Dash 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 (v4.1)

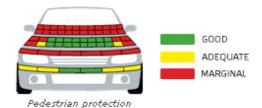
Body region scores out of 4 points each: Head 4 pts, chest 4 pts, abdomen 3.57 pts, pelvis 4 pts.

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)**

Protection for the head of a struck child was predominantly fair. However, protection of adults' heads was poor, as was the protection offered by the front edge of the bonnet.

PEDESTRIAN PROTECTION	Child head impacts	8.73
ANCAF	Adult head impacts	Zero
Rated ★ ★ ★	Upper leg impacts	Zero
	Lower leg impacts	4.84
Tested by Euro NCAP	Total (out of 36)	13.57



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# TECHNICAL DATA - HYUNDAI i30 with curtains & ESC - 2007 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	
Head HIC		156	200	48	
Acceleration (g for 3ms)		33.0	36.4	30.7	
Neck - Shear (kN)		0.40	0.43	-	
Tension (kN)		1.12	0.79	-	
Extension (Nm)		7.9	24.1	-	
Chest Accln (g for 3ms)		-	-	-	
Compression (mm)		28.75	19.44	19.88	
Viscous criterion (m/s)		0.12	0.06	0.13	
Abdomen - Force (kN)		-	-	1.160	
Pelvis - Force (kN)		-	-	1.010	
Upper legs Force (kN)	Left	1.86	2.85		
	Right	1.89	0.21		
Knee displ (mm)	Left	0.10	0.00		
	Right	7.87	0.40		
Lower legs Force (kN)	Left	0.69	2.36		
	Right	1.27	1.61		
Index (Upper/Low)	Left	0.17 /0.16	0.41 /0.23		
	Right	0.36 /0.19	0.39/0.3		

# **Bonus points (maximum 5)**

Pole Test: 2

Seat belt reminders: 2 (see table below for details)

# Modifiers - deductions from offset test scores

Head No deduction
Chest No deduction

Upper leg Variable contact` 1 pt deduction Drv L & R 1 pt deduction Pass L & R

Lower leg No deduction Foot score Score 4 points

# Modifiers - deductions from side impact test scores

Chest No deduction

# Safety features

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

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 (S NZ)
Side airbags, front seats - chest protection	O√(SNZ)	3 point centre rear seat belt	S
Side airbags. front seats - head protection	O√(SNZ)	Active head restraints - front seats	S
Side airbags. rear seats - head protection	O√(SNZ)	Intelligent seat belt reminder - driver	S
Driver knee airbag	Х	Intelligent seat belt reminder - front passenger	S
Seat belt pretensioners front/rear outboard	S/X	Rear seat belt status indicator	X*

<sup>\*</sup> The vehicle rated by Euro NCAP had a rear seat belt status indicator. This is not available on the Australian model.

Key:  $\sqrt{\ }$  = Fitted to vehicle that was crash tested (where not standard)

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



