

# Crash Test Results

## New Car Safety

### PROTON S16

July 2010 on

Dual front airbags\*



Offset crash test at 64km/h



**ANCAP**

Rated ★★★★★

**Occupant Protection**

**Occupant Protection Score 19.96 \* out of 37**

\* High risk of life-threatening chest injury in side impact. Safety equipment, as tested, not available on all variants.

Variant: 1.6 G sedan

Eng: 1.6 litre

Kerb mass: 1050 kg

Category: CAR - SMALL

Vehicles built: 2010

#### Model History and Safety Features

The Proton S16 was introduced in Australia late in 2009. The rating only applies to vehicles with dual front airbags. These were introduced on some vehicles built from July 2010.

A pretensioner is fitted to driver seat belt to reduce slack in the event of a crash. A two point seat belt is fitted to the centre rear seat of some variants. This provides inferior protection compared with a three point seat belt, as fitted to the GXR variant.

#### OCCUPANT PROTECTION: 3 Stars

The S16 scored 9.29 out of 16 in the offset crash test. The passenger compartment held its shape reasonably well. Protection from serious chest and leg injury was marginal for the driver.

The vehicle scored 10.67 out of 16 in the side impact crash test. There was a high risk of serious chest injury for the driver.

#### FRONTAL OFFSET CRASH TEST

Body region scores out of 4 points each: Head/neck 3 pts, chest 2.18 pts, upper legs 1.75 pts, lower legs 2.36 pts.

The passenger compartment held its shape reasonably well in the offset crash test. The brake pedal moved rearwards by 136 mm and upwards 62 mm. The steering wheel hub moved 64 mm rearward, 31 mm upward and 10 mm sideways. The front ("A") pillar moved 16 mm rearwards. All doors remained closed during the crash. After the crash the driver's door could be opened with high manual effort.

The airbag cushioned the head of the driver but the head twisted, increasing the risk of neck injury. 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. The centre console was a potential source of injury for the passenger's right knee.

#### SIDE IMPACT CRASH TEST

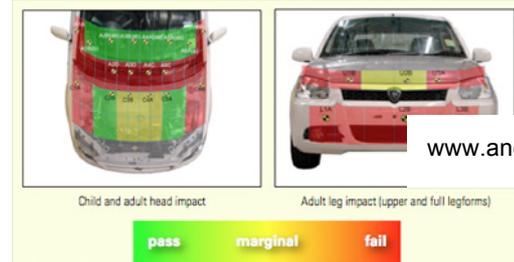
Body region scores out of 4 points each: Head 3.5 pts, chest zero pts, abdomen 3.17 pts, pelvis 4 pts.

Chest protection was poor.

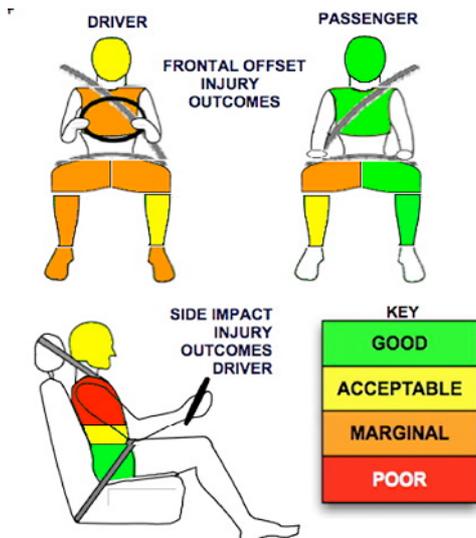
#### PEDESTRIAN PROTECTION: Marginal

The bumper and sides of the bonnet gave poor protection. Some parts of the bonnet offered good protection for a child head impact.

PEDESTRIAN PROTECTION	Child head impacts	7.9
<b>MARGINAL</b>	Adult head impacts	5.0
	Upper leg impacts	0.7
	Lower leg impacts	Zero
	Total (out of 36)	13.6
	v5	



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NEW CAR ASSESSMENT  
PROGRAM

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# TECHNICAL DATA - PROTON S16 with dual airbags - September 2010 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>	235	211	275
Acceleration (g for 3ms)	42.1	37.1	74.0
<b>Neck - Shear (kN)</b>	0.49	0.74	-
Tension (kN)	1.24	1.25	-
Extension (Nm)	45.4	14.3	-
<b>Chest Accln (g for 3ms)</b>	50.300	29.500	-
Compression (mm)	34.74	21.50	44.70
Viscous criterion (m/s)	0.22	0.11	0.65
<b>Abdomen - Force (kN)</b>	-	-	1.310
<b>Pelvis - Force (kN)</b>	-	-	2.000
<b>Upper legs Force (kN)</b>			
Left	0.33	0.36	
Right	1.27	3.53	
Knee displ (mm)			
Left	0.41	0.16	
Right	1.78	8.81	
<b>Lower legs Force (kN)</b>			
Left	3.57	1.82	
Right	2.71	2.13	
Index (Upper/Low)			
Left	0.40 /0.30	0.37 /0.32	
Right	0.27 /0.77	0.61/0.28	

### Bonus points (maximum 5)

Pole Test: Not eligible

Seat belt reminders: None

### Modifiers - deductions from offset test scores

Head	Neck injury risk	1 pt deduction
Chest		No deduction
Upper leg	Variable & conc. loading Drv	2 pt deduction Left & Right
	Passenger - concentrated load	1 pt deduction, Right
Lower leg		No deduction
Foot score	Pedal rear displacement	Score 2.56 points out of 4

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

### Modifiers - deductions from side impact test scores

Chest	No deduction
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### 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 / Brake Assist	X/X/X
Passenger front airbag	V*	Electronic stability control (ESC, VSC, DSC, ESP, VSA)	X#
Side airbags, front seats - chest protection	X	3 point centre rear seat belt	V
Side airbags, front seats - head protection	X	Whiplash rating	Pending
Side airbags, rear seats - head protection		Intelligent seat belt reminder - driver	X
Driver knee airbag	X	Intelligent seat belt reminder - front passenger	X
Seat belt pretensioners (Front/rear outboard)	S/X	Intelligent seat belt reminder - rear seats	X

Key: \* Fitted to vehicle that was crash tested

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

# ESC required by ANCAP for 5 star rating from 2008

