# **Crash Tests**

### **New Car Safety**

## **BMW MINI (LHD)**

2002 on

Front+side+head airbags

#### **Overall Evaluation**



Overall score 26.57 out of 37

Variant:3 DR HATCH Eng:1.6 litre.

Kerb weight: 1130 kg Category: SMALL CAR Vehicles built: 2002 Test by Euro NCAP

**Important note**: The *left-hand-drive* European model was tested by EuroNCAP. Australasian specifications may vary and therefore models sold in Australasia might provide different levels of protection to those described on this page.

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

The tested model of BMW MINI(LHD) was introduced in Australia during 2002.

Dual front airbags, side airbags and head-protecting side curtains are standard equipment in Australia. Curtains are optional in Europe. ABS brakes are also standard.

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.

#### **OVERALL EVALUATION: 4 Stars**

The BMW Mini scored 10.19 out of 16 in the offset crash test. The passenger compartment held its shape well. Protection from serious upper leg injury was marginal for the driver. Chest and upper leg protection was marginal for the passenger.

The vehicle scored 14.38 out of 16 in the side impact crash test. A further 2 points were earned in the optional pole test.

#### FRONTAL OFFSET CRASH TEST

Body region scores out of 4 points each: Head/neck 3pts, chest 2.1pts, upper legs 2pts, lower legs 3.09pts.

The passenger compartment held its shape well in the offset crash test. The brake pedal moved rearwards by X14mm and downwards 29mm. The steering wheel hub moved forwards 13mm, upwards 2mm and sideways 32mm. The front ("A") pillar moved 35mm rearwards. The width of the driver's doorway shortened by 32mm. All doors remained closed during the crash. After the crash all doors could be opened with normal effort.

The airbag cushioned the head of the driver but it bottomed out. Vehicle components were a potential source of injury for the driver's knees. The passenger's head was cushioned by the airbag.

#### SIDE IMPACT CRASH TEST

Body region scores out of 4 points each: Head 4pts, chest 2.38pts, abdomen 4pts, pelvis 4pts.

The vehicle was eligible for an optional pole impact test, since it had head-protecting side airbags as an option in Europe. The manufacturer decided to go ahead with the pole test and the vehicle earned a further two points.



Offset crash test at 64km/h

#### **INJURY MEASUREMENTS**

Refer to the informati sheet "How the test of done"		Offset Crash Test at 64km/h		Side Impact Crash Test at
		Driver	Passn	50km/h Driver
Head HIC		382	438.6	31.5
Acceleration (g for 3m	าร)	47.4	52.2	18.1
Neck - Shear (kN)		0.46	0.28	-
Tension (kN)		1.65	1.51	ı
Extension (Nm)	)	16.47	24.39	ı
Chest Accln (g for 3ms)		-	-	ı
Compression (mm)		31.01	35.3	30.12
Viscous criterion (m/s	s)	0.14	0.19	0.19
Abdomen - Force (kN	)	-	-	0.86
Pelvis - Force (kN	l)	-	-	2.8
Upper legs Force L	eft	0.69	0.53	
(kN) Rig	ght	2.92	0.01	
Knee displ (mm) Le	ft	0.57	2.71	
Rig	ght	0.56	0.14	
Lower legs Force Left		3.36	2	
(kN) Rig	ght	3.03	2.86	
Index (Upper/Low) Le	eft	0.5/0.39	0.24/0.22	
` ''	ght	0.49/0.4	0.53/0.33	

#### **Bonus points (maximum 5)**

Pole Test: 2pts Seat belt reminders: Not eligible

#### Modifiers for offset test scores

Head Airbag bottomed out 1pt deduction
Chest No deduction
Upper leg Variable & conc. loading
Lower leg No deduction
Foot score Score 4 points

#### Pedestrian rating (2002 protocol)



7.92 points out of 36

Child head impacts 1.93pts; adult head impacts 2pts; upper leg 4pts and lower leg impacts 0pts.



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