

# E-Guard



Mercedes-Benz

## The finest World of Protection. E-Guard

Isn't it a great feeling to go through life freely and independently, to enjoy intense moments, to gain new perspectives? One of the prerequisites for this is trust in your own strengths and capabilities. It gives a sense of security. The E-Guard protection concept likewise provides a sense of security. Its components are

produced with rigorous attention to detail, based on many years of experience and state-of-the-art technology, to ensure customised safety and maximum comfort. Giving you your own safe room. And the reassurance you need.



## Embrace the world with certainty

It's worth giving it everything, especially when you're nearing a goal and can almost taste the success. There can be few more inspiring feelings than the one that tells you 'everything is possible'. Accompanied by the notion that this feeling is lasting rather than fleeting. Because safety and reliability are good foundations for belief in new projects. With its sophisticated safety concept, the E-Guard fulfils an increased need for protection. Ready for those new perspectives?



Freedom as far as the horizon

If you feel completely secure, it leaves you free to decide what you want to do and when you want to do it.  
A vehicle that serves as a safe room gives you maximum freedom for your own voyage of discovery through life.



A single question that means so much

It's true that happiness lies in the moment. You can't bottle and store it. But there are many ways to achieve it. It's about those little gestures and important decisions. Like the ones for the E-Guard protection concept.



Complete confidence.  
As the world passes by outside

One of the things children do is make you think about the relativity of time. Immersed in the moment, there's a desire to stop time as it seems to go by far too quickly. With devotion and care comes an enduring feeling of security. The same thing applies to the careful selection and processing of the materials for the E-Guard, since here everything is geared towards ensuring that even the youngest passengers are not just kept very safe but also feel completely comfortable. And all this takes time, of course.



## As secure on the road as at home

After arriving home, pressure and tension seem to ebb away. This private sphere is a place of relaxation – a space for personal desires, plans and aspirations. The E-Guard conveys the same feeling of security. With its integrated protection concept, choice materials and well-engineered details that create a unique form of comfort. Enjoy the security of being fully protected even when on the road. And yet it will still always be a pleasure to return home!



14

50

Y<sub>1</sub>  
26

Tests & trials 15

10.8

0.04

## Tough yet unassuming

Your E-Guard has to show what it's made of long before it starts protecting you. In crash tests developed specifically for special-protection vehicles, it can meet the toughest of requirements, even in a heavy collision. The built-in reinforcements are invisible and offer active protection. The passenger compartment remains intact.



## How to stand still yet still make progress

Your special-protection vehicle also enhances safety with its outstanding handling characteristics, of course. Series-production quality with special protection. Maximum performance is required in endurance tests under the toughest of road conditions. In the brake test, for example, the additional protective components in no way hamper performance. The car still comes to an abrupt halt. Conditions on the road may be extreme, but in an E-Guard they don't turn the world upside down.



## Stay strong when under fire

The special-protection vehicle takes its fair share of punishment in the ballistic tests. Here the complete article can show its true strength: the vehicle is fired at from all sides and from all angles, at points defined by the proof house. But that's far from being all. Independent experts scrutinise the car for possible weak spots. The E-Guard is all about thinking ahead. And the vehicle stands impressively firm.



## Stay close to the ground

Increased protection is the obvious answer to an increased threat, one example being special floor armour that shows just how much it can withstand in a series of blasting tests. Here the protective concept follows one main principle: whatever happens, the E-Guard is hard to stop.

### Resistance levels according to BRV2009

Level	Type of weapon	Projectile	Resistance
VR 1			Weapons up to .22LR
VR 2			Handguns up to 9 mm Luger (Para)
VR 3			Handguns up to .357 Magnum
VR 4			Handguns up to .44 Magnum

VR = Vehicle Resistance  
 BRV = Directive for the testing and certification of bulletproof vehicles



Repeated tests passed with flying colours.  
 Only one thing counts

Given the importance of the job in hand, certain guarantees are a must. The E-Guard therefore has to pass a number of different tests. Featuring the latest innovations and refined details, the protection concept sets new standards. After all, it's about protecting the most valuable thing of all.

## A well-timed plan always comes together

The benefits of the integrated protection concept are obvious. The protective components, and therefore all the relevant changes to the vehicle, are taken into account as early as the development phase. The result is the same high level of comfort as the standard-production vehicle with no loss of space and a flawless design with no weak spots. Even in the bodyshop, work is geared towards preparing the E-Guard for special protection. This early phase provides opportunities for integrating protective components that will only present themselves once.



## Bespoke reinforcement and high-tech innovation

Perfection, precision and quality are minimum requirements for any Mercedes-Benz vehicle. And the E-Guard is no exception. During the production process, innovative technology, an experienced workforce and attention to detail in terms of materials and workmanship ensure exact and lasting results. Production is all about precision, the know-how in the competence centre providing the ideal basis for this. Possible weak spots are not an issue on the highly precise, moulded protective elements.





## A remarkably light precision landing

The components of the integrated protection concept together with the modified and reinforced chassis components add around 300 kilos to the weight of the E-Guard, depending on the engine version. Despite the extra weight, however, the special-protection vehicle is just as easy to drive as its standard-production counterpart. The solution is already part of the concept: specially dimensioned brakes allow full control during braking. Even during an emergency stop, the E-Guard remains safely on course and comes to an abrupt halt.



## Poise on the road

Featuring a protection concept that sets the standards, the E-Guard makes no compromises when it comes to dynamism and driving enjoyment. The reinforcements and protective components add weight, and this is taken into account in the chassis concept right from the start, of course. The special-protection vehicle and the modified axle are based on a flawless design from a single source, ensuring strength and flexibility as well as stability and poise. Not to mention a unique form of driving pleasure.

## Keeps going. Even if the air runs out

Close collaboration with renowned tyre manufacturers whilst your special-protection vehicle is still in the development stage is key to ensuring that things keep running smoothly. If one or more tyres lose air suddenly in a potentially dangerous situation, you need to be sure that the E-Guard will keep you moving. To get you to safety, it's all about staying mobile whatever the situation. The E-Guard meets these requirements and, even without air in the tyres, remains safely on course.



Nürburg 460. „Großer Mercedes“ Typ 770. Pullman-Limousi  
280 SE 3.5. 350 SE. 350 SEL. 450 SE. 450 SEL. 280 GE. 230  
SEL. 560 SEL. 500 SEL/S 500 lang. 600 SEL/S 600 lang. G  
500 lang. S 600 lang. Factory-integrated special protection.  
600 Pullman. S 420 CDI. S 450. S 600. S 600 Pullman. S 450

ne Typ 770. „Großer Mercedes“ Typ 770. 540 K. 600 Pullman.  
G Papamobil. 380 SE. 380 SEL. 420 SE. 420 SEL. 500 SE. 500  
320. G 350 TD. S 600 Pullman. E 320. E 420. E 430. G 500. S  
**Safety comes from experience.** E 320 CDI. E 350. E 500. S  
CDI. S 600. E 350 CDI BlueEFFICIENCY. E 350. E 500. G 500.

An issue as important as personal safety is also a question of trust. Uncom-  
promising solutions, reliable technologies and innovative ideas that meet the  
highest expectations can only come from experts. Here the strictest controls  
are a matter of course. You can bank on it. The earliest point to start thinking  
about protection and safety is in any case long before the production process.

A separate development process is used to design all protective components  
for flawless safety, and to ensure that their impact on the vehicle are taken  
into account. This same process has formed the basis for the integrated pro-  
tection concept as used in the E-Guard for some 80 years.



Strength in supposed weak spots: overlapping designs, including the mirror triangle



Complete protection built in from the start: an advanced and sophisticated concept prevents projectiles from entering, even at very sensitive points



Maximum visual appeal combined with the best safety features: high-strength, shatterproof and bullet-resistant



Window lift system and side windows integrated using specific process - front and rear windows almost fully lowerable

## No way in

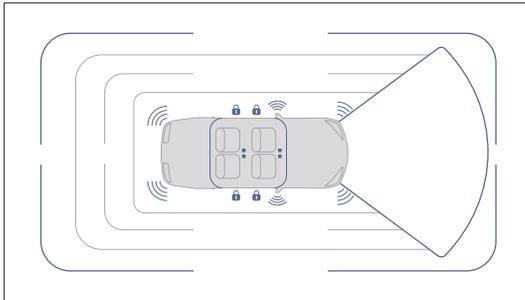
The integrated protection concept has multiple benefits, one of these being that the E-Guard is particularly strong in areas that are often considered weak spots. Such exposed points include joins between metal and glass, the area around the air conditioning system, the door lock and the mirror triangle. Here the E-Guard is equipped with heavily reinforced armour made from special steel in sophisticated overlapping designs.

If things get really serious, projectiles are effectively prevented from entering the passenger compartment. In the overlapping construction based on the labyrinth system, the bullet is diverted, and the vehicle interior remains a reliably safe space. The holistic procedure and production method maximise protection and can eliminate sources of danger right from the start, including at points where subsequent access is practically impossible.

## Personal protection is unbreakable

The glass used for the E-Guard has to meet stringent requirements. Several layers that form a special sandwich structure and an additional polycarbonate inner layer prevent the penetration of projectiles or other dangerous objects as well as protecting the occupants from glass splinters. Special power windows that allow

the same opening space as in the standard-production vehicles were developed to take into account the additional weight of the glass. The special glass likewise meets the strictest of requirements in terms of visibility, which remains good in any weather thanks to the heatable windscreen.



Panic alarm system acts as a deterrent: headlamps, indicators and an ear-piercing sound can be activated from any seat in the vehicle



An intercom system to remain in contact with the outside world, even when the windows and doors are closed



Press once and breathe easy again: the panic alarm system can also be deactivated at the push of a button



Illuminated and very easy to use: boot lid with emergency opening function for escape via the boot

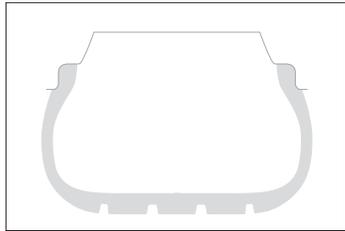
## Additional safety at the push of a button

Similarly sophisticated technology is used for the panic alarm system, which can be activated from any seat in the E-Guard. If danger is imminent, a push of a button is all it takes to lock all the doors and start flashing the headlamps

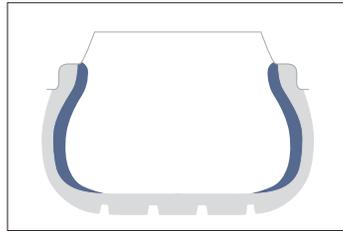
and the indicators. There's also an ear-piercing alarm signal – which is often enough to deter potential attackers by itself.

The intercom system in the E-Guard keeps you in contact with the outside world from inside the vehicle – with no need to open any doors or windows. Another important detail, should the worst come to the worst, is the boot lid's emergency

opening function. If you're abducted in your own car, a single press of a button gives you an escape route via the boot, even if it's been locked from the outside.



Standard tyres: if a tyre loses air, the vehicle's weight falls on the wheel, making it impossible to keep driving

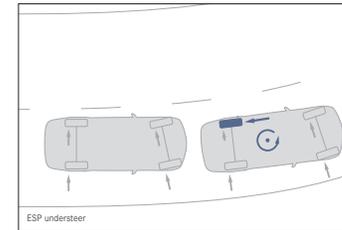


MOExtended: the reinforced side walls take the weight. So continued driving is possible even if one or more tyres have lost air

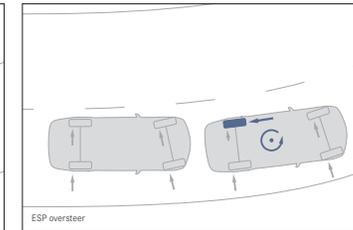
## The wheel that's sure to keep turning

One of the maxims of your personal protection concept is ensuring your mobility at all times – to get you out of a potential danger zone and into a safe area. With this in mind, the E-Guard is fitted with special tyres developed together with the manufacturers: MOExtended tyres – genuine Mercedes-Benz tyres with run-flat capability.

If the run-flat tyres deflate suddenly in a dangerous situation, their reinforced side walls take the weight on the wheel. So your special-protection vehicle remains steerable and driveable for a certain distance. The car and tyres are ideally matched to meet strict safety requirements.



ESP understeer



ESP oversteer

- ESP brake application
- Wheel lateral forces
- Yaw with vehicle's centre of gravity

From ESP to ABS: precise coordination of the electronic control systems for reliable cornering, even in extreme situations

## Total protection based on perfectly coordinated details

Development of the special-protection vehicle starts during series production – on all design levels, since the effective protective components have an impact on the entire vehicle concept in all its complexity. But such hurdles can be overcome, especially when production and modification take place in the same factory.

Electronic control systems such as ESP or ABS are precisely adapted to the extra weight, since this has an impact on the car's driving physics. Your E-Guard is uncompromising when it comes to your safety. And in terms of ride comfort and handling dynamics.



## As safe at night as during the day

The need for maximum safety sheds a whole new light on various aspects of the vehicle's equipment. High-quality lighting technology is one of the main requirements for safe driving. Your E-Guard includes LED headlamps as standard. The innovative light clusters comprising the headlamps, daytime running lamps and sidelights ensure maximum brightness on the road and very little dazzling. In addition to this, the vehicle LEDs boast impressively low power consumption

and a long service life. Further equipment options available for your E-Guard include LED High Performance headlamps with a full range of light functions based on LED technology. The flexible adjustment of the light distribution to suit the current driving situation and the course of the road further enhances road safety.



## A good climate improves concentration

A pleasant interior climate not only boosts your wellbeing, it also enhances your safety. That's because temperature and fresh air greatly affect the ability to concentrate and pay attention in traffic. Since everybody's needs are different here, a wide range of temperature control options is available. The THERMATIC automatic climate control system uses sensors to control the temperature and

ventilation for the driver and front passenger. Further features include air recirculation, a cooled glove compartment, and a combination filter that filters out particulate matter and improves overall air quality. The optimised THERMOTRONIC luxury automatic climate control system has its own control panel in the rear and offers a choice of three climate styles.



ELEGANCE



AVANTGARDE



Rear view with LED lights

Multi-spoke light-alloy wheels with 245/45 R 17 tyres  
(standard for ELEGANCE 4- and 6-cylinder models, Code 08R)5-twin-spoke light-alloy wheels with 245/45 R 17 tyres  
(standard for AVANTGARDE 4- and 6-cylinder models, Code 44R)5-twin-spoke light-alloy wheels with 255/40 R 18 tyres  
(standard for AVANTGARDE/ELEGANCE 8-cylinder models, Code 01R)

## Equipment (selection)

	E 350 BlueTec <sup>1</sup>	E 250 <sup>1</sup>	E 500
<b>Design and Equipment Lines</b>			
AVANTGARDE line	○	○	■
ELEGANCE line	○	○	□
<b>Special-Protection Features</b>			
Floor armour 1x DM51 (only in conjunction with single rear seats)	○	○	○
E-Guard High-Protection package consisting of: Front power windows left and right Protected passenger compartment according to VR4 (BRV 2009) Heated rear windscreen	□	□	□
Shatterproof safety glass with polycarbonate Specially reinforced suspension components and adapted control systems			
Rear power windows left and right	○	○	○
Panic alarm system including intercom system	○	○	○

	E 350 BlueTec <sup>1</sup>	E 250 <sup>1</sup>	E 500
Boot lid emergency opening feature inside boot	○	○	○
Run-flat tyres	○	○	○
Heated windscreen	○	○	○
Sun Protection package	○	○	○
<b>Exterior and suspension</b>			
AIRMATIC	○	○	□
Compact spare wheel instead of TIREFIT tyre sealant kit	—	○	○
17-inch wheels with 245/45 R 17 run-flat tyres	○	○	—
18-inch wheels with 245/40 R 18 run-flat tyres	○	○	□

○ Cost option ■ No-cost option ○ Mandatory at extra cost □ Standard — Not available <sup>1</sup> Available for certain countries only.

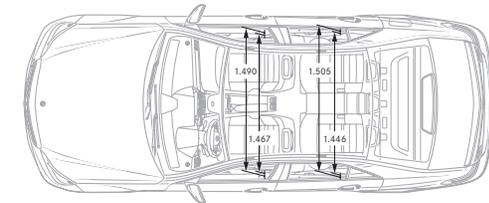
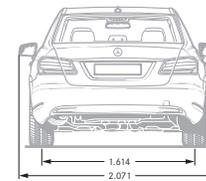
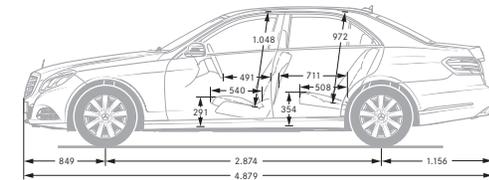
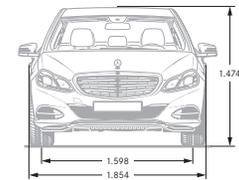
## Technical data

	E 350 BlueTec <sup>1</sup>	E 250 <sup>1</sup>	E 500
Model variant	212.026	212.036	212.073
Protection Level	VR 4	VR 4	VR 4
Engine			
Cylinders	V6 (OM642)	R4 (M274)	V8 (M278)
Displacement (cc)	2987	1991	4663
Output (kW) at engine speed (rpm) <sup>2</sup>	185/3800	185/5500	300/5000
Torque (Nm) at engine speed (rpm)	420	350	600
Automatic transmission	7G-TRONIC PLUS	7G-TRONIC PLUS	7G-TRONIC PLUS
Consumption/CO <sub>2</sub> (litres/100 km/g/km) <sup>3</sup>			
Urban	7.8/205	9.1/212	13.6/317
Extra-urban	5.6/148	6.1/143	7.4/172
Combined	6.4/167	7.2/168	9.6/225
Emission class	EU 6	EU 6	EU 5
Weights			
Permi. GVW	2680	2610	2680
Kerb weight (EC, incl. driver (75 kg) + tank 90% full)	2250	2070	2230
EC payload	430	540	450
Performance			
Acceleration 0-100 km/h (s)	7.5	8.9	5.4
Top speed <sup>4</sup>	240	240	240
Boot capacity (approx., litres)	532	532	532
Tank capacity/reserve (litres)	59	59	80
Wheels/Tyres			
Light-alloy wheels	8j x 17 ET 48	8j x 17 ET 48	8,5j x 18 ET 46
Tyres	245/45 R17	245/45 R17	255/40 R18

All models only available with automatic transmission.

<sup>1</sup> Available for certain countries only. <sup>2</sup> Figures according to Directive 80/1269/EEC in the currently applicable version. <sup>3</sup> The figures shown were obtained in accordance with the prescribed measuring process (Directive 80/1268/EEC in the currently applicable version). The figures are not based on an individual vehicle and do not constitute part of the product offer; they are provided solely for the purposes of comparison between the different vehicle models. <sup>4</sup> Electronically limited.

## E-Guard dimensions



All measurements in millimetres. The dimensions shown are average figures. They apply to the standard specification, unladen vehicle.

## Invisible from the outside. Indispensable on the inside

The term 'integrated protection concept' clearly states the concept's main strength. Your E-Guard incorporates measures and components designed to help ensure your safety, which are optimised in line with each other and the vehicle as early as the development phase, allowing thorough planning at an early stage. Another key aspect of the sophisticated system is the protective components' inconspicuousness. Perfectly concealed beneath what looks like the skin of a standard-production car, the protection concept does everything to help ensure your safety. And it's good that both we and you know everything that goes into making you feel safe and protected.





## Safety you can feel, protection you can measure. Ex factory and world-wide

Your E-Guard also gives you a feeling of total confidence when it comes to regular maintenance or repair of any damage, as the sophisticated protection concept naturally also includes specially trained personnel, the exclusive use of genuine spare parts and expert on-the-spot service. Even before you purchase the car, and for just as long afterwards, our sales team and technical support staff are at hand should you have any queries or requests. You can rest assured that you and your E-Guard are in the best hands at your Mercedes-Benz dealership.

Plus you can enjoy preferential VIP treatment wherever this is available. The benefits of developing and integrating the protective components as part of a holistic concept continue to manifest themselves during servicing and maintenance long after the car has been purchased. That's because, even at the point where the components are designed and installed, great attention is paid to ensuring access to possible wear-and-tear parts or damaged elements. So total protection also means long-term protection.



## Everything for your protection. Complete with warranty

When it comes to your E-Guard, comprehensive protection and flawless safety starts in the factory. Plus you get a full Mercedes-Benz manufacturer's warranty on a par with the warranty for a standard-production vehicle in every respect.

**Take-back of end-of-life vehicles.** You can return your E-Class to us for environment-friendly disposal in accordance with the European Union (EU) End-Of-Life Vehicle Directive. But that day lies a long way off .

To make the process as straightforward as possible, a network of vehicle take-back depots and dismantlers exists to allow you to return your vehicle free of charge. By using this facility you will be making a valuable contribution to completing the recycling loop and conserving resources.

For further information about end-of-life vehicle recycling, materials processing and the take-back conditions, please refer to the Mercedes-Benz website for your country.

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