

Mercedes-Benz at the 2010 Detroit Autoshow

Press Information

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The descriptions and data contained in this press kit apply to the international model range of Mercedes-Benz. Country-specific variations are possible.

Exciting premieres in Detroit

Detroit – Mercedes-Benz is celebrating the world premiere of the new E-Class Cabriolet at the North American International Autoshow 2010. It not only completes the successful E-Class family, but also features a world first: the AIRCAP® draught-stop, an easily operated system that considerably reduces wind turbulence in the open interior of this all-year convertible. The stars on show in Detroit also include the new Mercedes-Benz SLS AMG, a Gullwing model that combines automotive passion and high-tech at the highest level. Mercedes-Benz is also presenting a surprise in the shape of a beautifully executed automobile sculpture, a work that alluringly communicates car design as a new art form.

Mercedes-Benz is adding a particularly attractive and emotionally appealing member to the successful E-Class family with the new Cabriolet. Thanks to its classic fabric soft-top, this four-seater convertible provides open-air driving pleasure in its purest form.

In line with the motto "Four seasons, four people", all-year suitability was at the top of the specification list for the developers. Features ensuring year-round open-top driving enjoyment include the automatic AIRCAP® air deflector and draught-stop system. This can be deployed at the touch of a button, and considerably reduces wind turbulence in the interior of the new Mercedes E-Class-Cabriolet, so that a "warm air bath" is created even when the roof is open. It also eliminates the installation procedure for conventional angled draught-stops, the individual rear seats remain accessible and the side contours of the Cabriolet are not disrupted.

Comfortable travel with the roof closed is ensured by the standard acoustic soft-top, which has a particularly high level of sound insulation. With the roof closed, the E-Class Cabriolet has one of the quietest interiors in the four-seater premium convertible segment with a fabric roof. The roof can be fully automatically opened and closed within 20 seconds – and even on the move up to a speed of 40 km/h.

Standard equipment also includes a further development of the AIRSCARF® neck- level heating system integrated into the front seat backrests, which blows warm air from adjustable vents in the head restraints to warm the neck and shoulder area of the seat occupant like an invisible scarf. Page 3

The E-Class is the heart of the Mercedes-Benz brand. With the new Cabriolet, the E-Class family now has four attractive models. Trailblazing innovations characterise all the variants in the E-Class model series. They include direct-injection diesel and petrol models that combine high efficiency with superior power delivery. Exemplary safety features include the drowsiness detection system "ATTENTION ASSIST", the preventive occupant protection system PRE-SAFE®, the advanced technology of the "Intelligent Light System", the active bonnet and the proximity control system "DISTRONIC PLUS".

Over and above the innovations shared by all the models in this family, the individual variants have new features that enhance comfort, safety and attractiveness on a model-specific basis. The E-Class is the clear leader in its market segment: In Germany the market share of the E-Class Limousine in its comparative segment is approx. 60 percent and in Western Europe (excluding Germany) over 40 percent.

Mercedes-Benz SLS AMG

The new Mercedes-Benz SLS AMG, due to be launched in spring 2010 offers automotive passion and high-tech at the highest level. This Gullwing model dazzles with its purist design, intelligent lightweight construction and superior handling dynamics. The new SLS AMG is nothing short of a masterpiece by Mercedes-AMG GmbH. As its first completely independently developed vehicle, the super sports car is the highlight in the company's-more than 40-year history.

The new Mercedes-Benz SLS AMG is an alluring proposition with its unrivalled technology package: an aluminium spaceframe body with gullwing doors, AMG 6.3-litre V8 front-mid-engine developing **420 kW** (571 hp) peak output, 650 Nm of torque and dry sump lubrication, seven-speed double-declutch transmission

in a transaxle configuration, sports suspension with aluminium double wishbones - this superlative combination guarantees driving dynamics of the highest order. This 'Gullwing' accelerates from 0 to 100 km/h in 3.8 seconds, and has a top speed of 317 km/h (electronically limited).

The purist design of the new Mercedes-Benz SLS AMG impresses with its passionate sportiness, and reinterprets the breathtaking lines of the Mercedes-Benz 300 SL. As the stylistic highlight, the striking gullwing doors give the SLS AMG an incomparable charisma.

Art and automobile design

Mercedes-Benz is not only treating visitors to the North American International Autoshow 2010 in Detroit to the E-Class Cabriolet and the SLS AMG, but also to a beautifully executed automobile sculpture. It represents a vehicle body taking soft, flowing form from a level surface, suggesting the shape of a car in a sophisticated and encoded manner - as an exclusive, sensuous creation. The sculpture is therefore a work that alluringly communicates car design as a new art form. It shows that designing and modelling at Mercedes-Benz Design has a great deal to do with creativity and the work of artists. Naturally the sculpture also challenges the onlooker to speculate which future, real product may be nearing the end of its flowing design process here.

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Four seasons, four passengers

- **Comfortable: AIRCAP[®] automatic draught-stop plus AIRSCARF[®]**
- **Quiet: acoustic soft top as standard**
- **Safe: robust roll-over protection and new headbags**

The highly appealing and emotionally charged Cabriolet is the latest addition to the successful Mercedes-Benz E-Class line-up. The open-top two-door model, which goes on sale on 11 January 2010, features a classic fabric soft top, making for a stylistically pure cabriolet feeling. Viewed from the side, the new model is an intriguing proposition – with its clear proportions and a flawless cabriolet silhouette.

In keeping with the motto "four seasons, four passengers", all-year-round suitability was right at the top of the developers' list of priorities. With the new E-Class Cabriolet, the cabriolet season lasts the whole year because, while many cabriolets tend to disappear from the roads of Western Europe in the autumn, the Mercedes-Benz E-Class Cabriolet (length/width/height: 4698/1786/1402 mm) provides driving pleasure and comfort whether the roof is open or closed.

New features include:

- The AIRCAP[®] automatic draught-stop: always on board and easily controllable at the push of a button, it reduces turbulence substantially for all four seat occupants
- The modified AIRSCARF[®] neck-level heating system
- The acoustic soft top fitted as standard

The soft top can be opened and closed fully automatically within 20 seconds – even when driving at speeds of up to 40 km/h. The cabriolet roof is stowed in a special compartment behind the rear panel. A retractable cover separates the soft top compartment from the boot area; it must be closed in order to close the soft top. If the roof is to remain closed, the cover can be slid rearwards, in which case

the boot capacity is increased by 90 litres to 390 litres. A through-loading feature is included as standard for the new Cabriolet, as is EASY-ENTRY – a manually operated entry and exit aid for the rear passengers. Page 6

The powerplants for the new E-Class Cabriolet are equally innovative: the new direct-injection diesel and petrol models combine efficiency with effortlessly superior power delivery. The exemplary, low fuel consumption has not only been achieved because of the new engines, but also with a number of practical measures. These include on-demand activation of the steering and fuel pumps, the use of tyres with low rolling resistance and an alternator control system which takes account of the current driving situation and the vehicle's electrical power requirements, plus the crucial factor of outstanding aerodynamics. The Cabriolet's c_d figure of 0.28 is the best in its class, marking a continuation of the E-Class success story in the field of aerodynamics.

An overview of the engines:

- E 220 CDI BlueEFFICIENCY Cabriolet: **125 kW** (170 hp)
- E 250 CDI BlueEFFICIENCY Cabriolet: **150 kW** (204 hp)
- E 350 CDI BlueEFFICIENCY Cabriolet: **170 kW** (231 hp)
- E 200 CGI BlueEFFICIENCY Cabriolet: **135 kW** (184 hp)
- E 250 CGI BlueEFFICIENCY Cabriolet: **150 kW** (204 hp)
- E 350 CGI BlueEFFICIENCY Cabriolet: **215 kW** (292 hp)
- E 500 Cabriolet: **285 kW** (388 hp)

Less turbulence, easier to use: AIRCAP® is a world-first

In 1989, Mercedes-Benz introduced a world premiere in the shape of a draught-stop for the SL model series, followed in 2004 by the AIRSCARF® neck-level heating system to further enhance comfort in open-top models. Now comes another world-first: the AIRCAP® automatic draught-stop, which can be activated at the push of a button, greatly reduces turbulence in the interior of the new Mercedes E-Class Cabriolet, creating a **sea of warm air**. It is also much easier to implement and use than conventional draught-stops: there is no tricky

installation, the two individual rear seats remain free and the Cabriolet's flowing side lines remain uninterrupted. AIRCAP® is therefore a classic Mercedes innovation: functional, comfort-enhancing, elegant and safe. Page 7

AIRCAP® consists of two components: a wind deflector that can be extended by around six centimetres with a net in the windscreen frame and a draught-stop between the rear seats.

The functions of the two components:

- Elevation of the free flow above the interior
- Net at the front increases the basic pressure in the interior
- Draught-stop at the rear reduces the backflow

As well as enhancing occupant comfort and wellbeing, the reduction in draught when AIRCAP® is activated (it can be activated at speeds of up to 160 km/h and remains in use right up to the car's top speed) reduces the interior noise level – so passengers in all seats find it far easier to communicate.

The Cabriolet Comfort package includes AIRCAP® with AIRSCARF®. This patented system functions like an invisible scarf, which warms the occupants' head and neck areas. AIRSCARF® is integrated into the backrests of the front seats and provides warm air through outlets in the head restraints.

The Mercedes engineers have modified this unique innovation specifically for the E-Class Cabriolet: in this model, an adjustment wheel pivots the outlet nozzle upwards and downwards by a total of 36 degrees over and above the head restraint height adjustment, meaning that the driver and front passenger can enjoy the unique neck-level heating regardless of how short or tall they are.

Quiet, warm and windproof: acoustic soft top fitted as standard

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Thanks to its acoustic soft top, fitted as standard, even the closed E-Class Cabriolet has one of the quietest interiors in the segment for four-seater premium cabriolets with a fabric roof. The soft top's exceptionally high-quality insulation brings about a clearly noticeable reduction in the interior noise level compared to conventional fabric soft tops. Exterior noise caused by other vehicles and wind noise are therefore absorbed more effectively. On the road, the difference is audible from speeds of just 80 km/h, for example when driving through a tunnel or overtaking a convoy of trucks. At higher speeds, the benefits of the acoustic soft top are even more tangible. For instance, it is possible to have a perfectly normal phone conversation in hands-free mode even when travelling at a speed of over 200 km/h.

The soft top is of course waterproof and windproof. Plus it can be put through an automatic car wash without any hesitation. With a total thickness of 23.5 mm, the fabric soft top offers excellent thermal insulation, meaning that the E-Class Cabriolet is also ideal for use in winter.

Safety: robust structure, anticipatory protection and windowbags

The new Cabriolet offers the wealth of safety innovations one would expect from a Mercedes model. Highlights of the open-top two-door model include roll-over protection, the A-pillars reinforced by two additional tubes and the plug-in B-pillars. This new model is also the first Mercedes cabriolet to feature headbags.

The roll-over protection consists of two robust bars, each with a diameter of 35 mm, which are housed in the rear head restraints in modules behind the rear seat backrests. A tilting cone sensor detects imminent danger to the occupants based on extreme skidding movements or acceleration caused by impact. If this sensor then sends a corresponding signal, pre-tensioned pressure springs are activated by pyrotechnic means, i.e. extremely quickly.

Consequently, both roll-over bars in the rear head restraints are extended. They reach their highest point and are locked automatically within a fraction of a second. In combination with the robust A-pillars, each of which is reinforced with two high-strength steel tubes, the steel bars provide highly effective roll-over protection.

The plug-in B-pillars are extremely robustly connected as they engage in the side skirts, thus offering highly effective protection in the event of a crash. A shoe made from ultra-high-strength steel braces the inside of the B-pillar against the rear seat crossmember.

With seven airbags fitted as standard, belt tensioners and belt force limiters for all seats, not to mention crash-responsive head restraints for the driver and front passenger, the new E-Class Cabriolet offers the most extensive safety equipment package in this vehicle category. The airbags, which can deploy in milliseconds in the event of an accident, include front airbags and sidebags for the driver and front passenger, a kneebag on the driver's side, and headbags. The latter, which appear in a Mercedes cabriolet for the first time, are housed in the door panelling in the beltline area. Covering a wide area – around 0.7 x 0.5 metres with a volume of 17 litres when deployed – the airbags provide extremely effective protection for occupants large and small in the event of a crash. The three-part side protection system – comprising headbag and thoraxbag – optimises the level of protection afforded to individual parts of the body. Rear sidebags are available as an option.

Further exemplary safety equipment available for the E-Class Cabriolet includes ATTENTION ASSIST drowsiness detection, PRE-SAFE[®] anticipatory occupant protection, the sophisticated Intelligent Light System, the Active Bonnet and DISTRONIC PLUS proximity control.

An innovative family at the heart of the brand

- **Complete: the Cabriolet is the fourth model in the E-Class range**
- **Innovative: all variants are characterised by ground-breaking new products and features**
- **Successful: the E-Class is the clear leader in its market segment**

In March 2009 Mercedes-Benz embarked on the renewal of the E-Class model family - one year later, with the market launch of the Cabriolet, the portfolio will be complete. A **number of technical innovations** have been incorporated into the new E-Class which no other car in this class is able to offer - from drowsiness detection to automatic emergency braking when an accident is recognised as imminent, and from Adaptive Highbeam Assist to the active bonnet. The E-Class is one of the safest vehicles in its segment, a fact which has also been proven by independent crash tests and the specialist press.

In addition, there is a wide selection of powerful and **efficient engines** which is set to be systematically extended over the coming months. Depending on model, these range from the innovative E 200 CDI BlueEFFICIENCY producing **100 kW** (136 hp) up to the E 500 producing **285 kW** (388 hp). There are also AMG versions producing **386 kW** (525 hp) and the all-wheel drive system 4MATIC. **Exemplary aerodynamics** are yet another feature of the model range: with a drag coefficient (Cd) of 0.25, the saloon is the most aerodynamically efficient four-door car in the world, while the model range's Coupé achieves the best overall figure for a series-production car with a Cd figure of just 0.24.

"The renewal of the E-Class model family at the heart of the Mercedes brand has come at precisely the right time. The success of the new E-Class shows that even in what are now economically turbulent times, Mercedes brand values such as safety and efficiency, combined with exciting design, enjoy particular significance among discerning customers", explains Dr. Dieter Zetsche, Chairman of the Board of Daimler AG and Head of Mercedes-Benz Cars.

As such the E-Class is the clear leader in its market segment: in Germany the E-Class Saloon enjoys a market share of around 60 percent in its respective segment, while in Western Europe (excluding Germany) its share is more than 40 percent.

The four models in the current Mercedes luxury class series:

- The E-Class Saloon: the benchmark in the luxury class.
Market launch: March 2009
- The E-Class Coupé: excitement can be this efficient.
Market launch: May 2009
- The E-Class Estate: intelligent (E)state-of-the-art.
Market launch: November 2009 and
- The E-Class Cabriolet: the 4-seater for all 4 seasons.
Market launch: March 2010

Besides the innovations which all of the models of this family share, the individual variants have a number of new products and features to enhance the comfort, safety and appeal which are specific to this model. With the new AIRCAP[®] feature, enhanced AIRSCARF[®] and also the standard acoustic soft top, the new **E-Class Cabriolet** for example provides all-year-round comfort which is unique in the segment of open-top vehicles. "The development of AIRCAP[®] is an example of the perseverance and tenacity of our engineers and technicians: convinced of the customer benefit of an automatic draught-stop, our specialists have finally found the Mercedes solution, which at the press of a button helps to significantly reduce turbulence in the car's interior for all passengers – it is easy to use and always there. In this way we are enabling our customers to enjoy comfortable, open-top driving all year round", says Dr. Thomas Weber, Daimler Board Member for Corporate Research and Head of Development of Mercedes-Benz Cars.

For its part, in addition to air suspension with self-levelling at the rear as standard, the Estate model also provides unique new load compartment management features.

"Never before have we had such an effective presence with our E-Class model series as we have with today's range. Saloon, Estate, Coupé and Cabriolet all share the same winning gene, yet appeal to our customers in a very individual way. This mixture has been extremely well received by our customers. With the new Cabriolet we are complementing our successful E-Class family with yet another particularly emotionally appealing model, in which our customers can continue to enjoy the Cabriolet season even longer thanks to the unique automatic draught-stop", confirms Dr. Joachim Schmidt, Head of Sales and Marketing of Mercedes-Benz Cars.

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The new Mercedes-Benz SLS AMG

- **Gullwing doors a unique highlight**
- **420 kW (571 hp) performance and 650 newton metres of torque**
- **Aluminium spaceframe with a weight of just 241 kilograms**

Automotive fascination and high-tech at the highest level: the new Mercedes-Benz SLS AMG, which is due to be launched in spring 2010. This Gullwing model captivates with a purist design, intelligent lightweight construction and superior handling dynamics, and is bound to cause a sensation in the super sports car segment. The new SLS AMG is nothing short of a masterpiece by Mercedes-AMG GmbH. As the first independently developed vehicle, the super sports car is the highlight in the company's more than 40-year history. It not only takes AMG, the performance brand within Mercedes-Benz Cars, into a new era, but also demonstrates development expertise of the very highest order.

The new super sports car from Mercedes-Benz and AMG makes for an alluring proposition with its unrivalled technology package: aluminium spaceframe body with gullwing doors, AMG 6.3-litre V8 front-mid-engine developing **420 kW** (571 hp) peak output, 650 Nm of torque and dry sump lubrication, seven-speed double-declutch transmission in a transaxle configuration, sports suspension with aluminium double wishbones and a kerb weight of 1620 kilograms based on the DIN standard – this superlative combination guarantees driving dynamics of the highest order. The front/rear weight distribution of 47 to 53 percent and the vehicle's low centre of gravity are testimony to the uncompromising sports car concept. The 'Gullwing' accelerates from 0 to 100 km/h in 3.8 seconds, before going on to a top speed of 317 km/h (electronically limited). The fuel consumption of 13.2 litres per 100 kilometres (combined) puts it at the front of the competitive lineup.

Design: purist, distinctive and passionate

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The purist design of the new Mercedes-Benz SLS AMG captivates by virtue of its passionate sportiness, and its reinterpretation of the Mercedes-Benz 300 SL's breathtaking design lines. The stylistic highlights are the striking gullwing doors, which lend an incomparable charisma to the SLS AMG. The long bonnet, the low greenhouse positioned well to the rear and the short rear end with its extendable rear aerofoil stand for dynamism, as do the long wheelbase, the wide track and large 19 and 20-inch wheels. It is not only the gullwing doors that are reminiscent of the Mercedes-Benz 300 SL, as the wide radiator grille with its large Mercedes star, the wing-shaped cross fin and the fins on the bonnet and flanks also hark back to the legendary sports car of the 1950s.

Eyecatching features of the side view include the accented wheel arches and the pronounced shoulder line, which extends from the front to the rear end like a taut muscle. Dynamism and power are also communicated by the rear view of the SLS AMG: the gentle slope of the boot lid with the automatically extending aerofoil accentuates the impression of width, as do the flat LED tail lights.

Interior with a touch of aircraft engineering

Mercedes-Benz designers took their inspiration from the aviation world when designing the interior. The stylistic centrepiece is the dashboard, which ensures a visual impression of breadth with its muscular, wing-like profile. The four air vents with adjustable cruciform nozzles are prominently integrated into the dashboard – their shape is reminiscent of a jet engine. The design theme of an aircraft cockpit is also reflected in the long centre console of matt-finished, solid metal. Features integrated into this include the AMG DRIVE UNIT, which enables the driver of the SLS AMG to choose a personal vehicle setup. The AMG SPEEDSHIFT DCT 7-speed sports transmission is operated by the E-SELECT lever, which resembles the thrust control of a jet aircraft. Despite the low seating position typical of a sports car, the wide-opening gullwing doors allow easy access and egress. They require less opening space than conventional coupé doors, and can be fully opened in a standard-size garage.

The SLS also breaks the mould when it comes to the body concept: for the first time, Mercedes-Benz and AMG are presenting a car with an aluminium chassis and body. Compared with the traditional steel design, this results in a significant weight saving, as is clearly illustrated by the DIN kerb weight of 1620 kilograms.

The newly developed bodyshell consists of an aluminium spaceframe. This exclusive design combines intelligent lightweight design with outstanding strength – thus delivering superlative driving dynamics. Lightweight aluminium sections connect the frame nodes to form a sturdy structure. These aluminium sections ensure high strength, and ensure the necessary, direct transfer of drive, braking and suspension forces. The structure prevents unwanted flexibility; the vehicle responds rigidly, directly and with practically no torsion.

45 percent of the intelligent, weight-optimised aluminium spaceframe is made from aluminium sections, 31 percent from sheet aluminium, 20 percent from cast aluminium and 4 percent from steel. Maximum occupant safety requires the use of ultra-high-strength, heat-formed steel in the A-pillars. The bodyshell weighs 241 kilograms – an absolute benchmark in the super sports car segment in relation to the peak output of **420 kW** (571 hp). With a DIN kerb weight of 1620 kilograms, the power-to-weight ratio is an extremely favourable 2.84 kilograms per hp.

Low centre of gravity and transverse reinforcing struts for superb dynamism

The entire vehicle concept has been designed to achieve a centre of gravity that is as low as possible. This applies both to the low connection of the powertrain and axles as well as to the arrangement of the rigidity-related bodyshell structure. Examples include the rigid flexural and torque connections between the front and rear sections and the safety passenger cell, which have been realised using force paths that are consistently as low as possible. This results not only in a low centre of gravity, but also in a harmonious and therefore efficient force path in the vehicle structure.

The aluminium spaceframe provides the basis for outstanding passive safety. The extensive safety features include three-point seat belts with belt tensioners and belt force limiters, and up to eight airbags: adaptive front airbags for the driver and passenger, a kneebag for each, two seat-integrated sidebags and two windowbags deploying from the waistlines of the gullwing doors.

Fine-tuned AMG 6.3-litre V8 engine developing 420 kW (571 hp)

A powerful eight-cylinder Mercedes-AMG engine forms the heart of the new SLS. The fine-tuned 6.3-litre V8 engine develops **420 kW** (571 hp) at 6800 rpm, making the SLS AMG one of the most powerful sports cars in its segment. A power-to-weight ratio of 2.84 kg/hp comes courtesy of the low vehicle weight. The naturally aspirated engine delivers its maximum torque of 650 Nm at 4750 rpm. The SLS accelerates from 0 to 100 km/h in 3.8 seconds, and has an electronically limited top speed of 317 km/h. Bearing the internal designation M 159, the high-revving V8 engine with its displacement of 6208 cubic centimetres has been thoroughly reengineered compared to the basic M 156 engine, and boasts all the hallmarks of powerful racing engines.

The principal measures in increasing output include the all-new intake system, the reworked valve train and camshafts, the use of flow-optimised tubular steel headers and the dethrrotling of the exhaust system. This results in much better cylinder charging, which feeds through into an increase in output by almost nine percent – **34 kW** (46 hp). The eight-cylinder engine responds swiftly to movements of the accelerator pedal, demonstrating much more pronounced high-revving flexibility across the entire rev range. The switch to dry sump lubrication also translates into a much lower installed engine position. And lowering the vehicle's centre of gravity has also paved the way for high lateral acceleration and exhilarating driving dynamics.

Perfect synthesis of lightweight design and strength

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The use of high-strength components compensates for the increased engine loads associated with the higher output. Forged pistons, a reinforced crankshaft bearing, optimised crankcase structure, along with improved lubrication thanks to a demand-controlled, high-performance oil pump ensure optimum durability. Despite these higher loads, the engine weight for the M 159 has been further reduced. The forged pistons as oscillating masses play a particularly valuable role in this respect, resulting in a kerb weight of 205 kilograms and, in turn, a power-to-weight ratio of 0.36 kg/hp – an unrivalled figure compared with the competition. Sophisticated catalytic converter technology enables current and future exhaust emission standards such as EU 5, LEV 2 and ULEV to be met.

Enables demanding fuel consumption targets to be met

Despite its uncompromisingly sporty character, very ambitious fuel consumption targets have been met. The SLS AMG consumes 13.2 litres per 100 kilometres (combined, provisional figure), earning it a place at the top of the competitive ranking. Efficiency-enhancing measures include the familiar AMG-exclusive, friction-optimised twin-wire arc-sprayed coating on the cylinder walls as well as the on-demand, map-optimised oil supply and intelligent generator management: during the engine's overrun phases and braking, kinetic energy is used to charge the battery, rather than being wasted by simply generating heat. Conversely, the generator is switched to no-load operation during acceleration, thus reducing the load on the engine.

Double-declutch transmission with transaxle configuration and torque tube

The AMG 6.3-litre V8 engine delivers its abundant power to the rear axle via an ultra-light carbon-fibre driveshaft – similar to the setup used in the DTM C-Class racing touring car. The double-declutch transmission is mounted at the rear (transaxle principle), and connected to the engine housing via a torque tube. A carbon-fibre shaft rotates at engine speed in the torque tube. The advantages of this

sophisticated solution lie in the rigid link between the engine and transmission and, in turn, the optimum support for the forces and torque generated.

The AMG SPEEDSHIFT DCT 7-speed sports transmission boasts fast gear changes with virtually no loss of tractive force – in as little as 100 milliseconds. The driver has a choice of four different driving modes: "C" (Controlled Efficiency), "S" (Sport), "S+" (Sport plus) or "M" (Manual). In the Sport, Sport plus and Manual modes the automatic double-declutching function is active; all the modes can be selected conveniently via the rotary control in the AMG DRIVE UNIT. The RACE START function provides optimum traction – as does the mechanical differential lock, which is integrated into the compact transmission housing.

Sophisticated suspension layout with double-wishbone axles

The chosen solution with a front-mid-engine plus transaxle configuration ensures an ideal front/rear weight distribution of 47 to 53 percent. Mounting the engine behind the front axle has created the ideal conditions for consummate driving dynamics with precise steering, first-class agility, low inertia with spontaneous directional changes and outstanding traction. All four wheels are located on double wishbones with a track rod, a technology that has proven itself in motor racing right through to Formula 1. With a double-wishbone axle, the wheel location and suspension functions remain separate; the spring/damper struts are supported on the lower wishbone. The double-wishbone concept with its high camber and track rigidity positively locates the wheel with minimal elastic movements, providing the driver with an optimum sense of road contact when driving at the limits.

Wishbones, steering knuckles and hub carriers at the front and rear are made entirely from forged aluminium – substantially reducing the unsprung masses; this configuration also notably improves the suspension response. The long wheelbase of 2680 millimetres not only results in outstanding straight-line stability but also low wheel load shifts, significantly reducing the vehicle's tendency to dive and

squat when braking and accelerating. The broad track width – front 1682, rear 1653 millimetres – ensures lower shifts in the wheel loads from the inner to the outer wheel when cornering, enabling the tyres to retain more grip.

Direct steering, differential lock and 3-stage ESP®

The rack-and-pinion steering gear provides a consistently direct steering feel with a constant mechanical ratio of 13.6:1, in tune with the high expectations placed on a super sports car. The power steering provides speed-sensitive assistance and improves feedback for the driver as the road speed increases: an indispensable factor for high-speed straight-line driving. Mounting the steering gear in front of the engine on the integral subframe enables the engine to be set down very low. The Gullwing model comes with 3-stage ESP® as standard, and the driver can choose the three "ESP ON", "ESP SPORT" and "ESP OFF" modes at the touch of a button. In "ESP OFF" mode too, operating the brake pedal restores all the normal ESP® functions.

Acceleration skid is controlled in all three ESP® modes. If one of the drive wheels starts to spin, specific brake pressure is applied to improve traction significantly – especially in conjunction with the standard-fit mechanical multi-disc limited-slip differential. This means that the engine power is transferred to the road even more effectively when driving in a particularly dynamic style.

AMG ceramic composite high-performance braking system available as an option

The AMG high-performance braking system with composite brake discs at the front ensures extremely short stopping distances even under high loads. The newly developed, optional ceramic composite brakes with even larger brake discs guarantee even better braking performance. The ceramic brake discs perform reliably at even higher operating temperatures thanks to their greater hardness, all combined with an impressive weight reduction of around 40 percent. Reducing the unsprung masses has further improved both comfort and grip, and the reduced rotating masses at the front axle ensure a more direct steering response.

Lightweight construction was also key when it came to the wheels: weight-optimised AMG light-alloy wheels – 9.5 x 19 inch (front) and 11.0 x 20 inch (rear) – based on the innovative flow-forming principle reduce the unsprung masses while improving driving dynamics and suspension comfort. In addition to the standard-fit AMG 7-spoke light-alloy wheels, 5-twin-spoke wheels and weight-optimised 10-spoke forged wheels are available as an option. 265/35 R 19 (front) and 295/30 R 20 (rear) tyres developed exclusively for the SLS AMG ensure optimum performance. A tyre pressure monitoring system is fitted as standard to permanently monitor tyre pressure in all four wheels; individual tyres are shown on the display.

The SLS AMG as a masterpiece in AMG's more than 40-year history

The new SLS AMG is a true masterpiece on the part of Mercedes-AMG GmbH. As the first independently developed car, the super sports car is the highlight of the company's more than 40-year history. With this car AMG, the performance brand within Mercedes-Benz Cars, is not only entering a new era, but also demonstrating development expertise of the highest order.

AMG was established in 1967 by Hans Werner Aufrecht and Erhard Melcher, and is considered a pioneer in the field of vehicle tuning for motorsports. Following the cooperation agreement concluded in 1990 with Daimler-Benz AG, the company was gradually incorporated into what at the time was DaimlerChrysler AG in 1999. On 1 January 2005, DaimlerChrysler AG acquired 100 percent of the shares. Today Mercedes-AMG GmbH is a vehicle manufacturer in its own right, and AMG is the performance brand within Mercedes-Benz Cars. This subsidiary of Daimler AG specialises in unique, high-performance vehicles; its sporty saloons, SUVs, coupés, cabriolets, roadsters and specially built one-off models constitute a product portfolio which meets its customers' every wish. The product range encompasses a total of 16 AMG high-performance models with outputs ranging from **265 kW** (360 hp) to **450 kW** (612 hp).

Mercedes-AMG has overall responsibility for developing the design, aerodynamics, interior as well as the powertrain, engine, suspension, brakes and electronics – right up to granting final approval for production of the complete AMG vehicle. The company is also in charge of all marketing and sales-related activities for its products.

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Automobile design as an art form: sculpture

- **A jewel of automotive artistry**
- **Artistic imagination and the forces of nature**

Mercedes-Benz is not only treating visitors to the North American International Autoshow 2010 in Detroit to the world premiere of the new E-Class Cabriolet and innovative technology, but also placing a beautifully executed automobile sculpture at centre stage. It represents a vehicle body taking soft, flowing form from a level surface – as if an automobile of liquid silver was being created, or a shimmering cloth was gently draped over a newly conceived design. As if by a natural process, clearly contoured surfaces are ordered and delineated by sharply drawn, curved lines. They lend the sculpture an organic appearance, giving it a future and origin.

The sculpture is an exclusive, sensuous creation and extraordinarily eye-catching. But it also transports car design into a new, artistic reality. "To us, automobile design means artistic, aesthetically and sensuously oriented creation", says Head of Design Prof. Gordon Wagener. "Mercedes-Benz designers translate their artistic inspiration into the modern idiom of Mercedes-Benz automobile design, which combines dramatic details with harmony, style and passion. Mercedes-Benz design is clear, calm and consistent, but yet emotional and highly sensuous. Mercedes-Benz is the brand best able to present automobile design as an art form in an authentic way."

As an extraordinary jewel of automotive artistry, the sculpture uses its flowing, cloth-like connection to its surroundings and the resulting pattern of folds to symbolise the positively and negatively curved surfaces of the modern Mercedes-Benz design strategy. This is characterised by dramatic, full surfaces whose proportions are attractively defined by fine, softly emerging but sharply contoured lines.

Viewing the sculpture can conjure up many associations. Perhaps a sand dune or a snowdrift, a viscous substance such as hot lava or mercury from which an automobile is being created. The sculpture imitates the formative power of nature: flowing elements change their shape as the form of a new automobile emerges in line with the dynamic laws of gravity and aerodynamics, making this form vaguely visible and solidifying into a work of art with the appearance of a casting possessing contours and clear definitions. It shows shapes and lines that appear natural gradually taking the form of a vehicle body, a sensuous basic structure on which curving, sinewy lines create emotional contours. An aesthetic transformation, "shaped by nature" and the artistic imagination of the designer.

Inspired by and taking its origin from the forces of nature, this artistically executed sculpture also symbolises the key basic values of the Mercedes-Benz brand – intelligent technology and quality, sensuous beauty, style, dynamism and innovative strength for well over a century. Coupled with respect for man and nature. Mercedes-Benz is one of the few automobile companies able to communicate this credibly as a work of art.

This is also reflected in the shining Alubeam silver paint finish, which interacts with the contours of the sculpture to create multi-faceted areas of light and shade. At the same time this Mercedes colour is a reference to the glorious motor racing history of the Mercedes-Benz brand, but also suggests visions of the day after tomorrow and promises the innovations of the future.

This high-quality sculptural depiction was essentially created as an attempt by Mercedes-Benz Design to show the cultural feeling and creativeness of its designers in the five international design studios in Germany, Italy, the USA, Japan and China, to further their artistic ideals and develop a design for Mercedes-Benz. "Many of our designers come from artistic families, carry artistic ambitions in their genes, so to speak, and found their way into automobile design via their artistic talent," is how Prof. Gordon Wagener explains the potential.

With this sculpture, Mercedes-Benz provides an insight into the thinking and perceptions of its team of designers and model-makers. While a design idea initially takes shape on paper, it is subsequently modelled in clay. This is sculptural work in its purest form, and eminently suitable for finding new shapes and creating sensuousness. The automobile as an art form, with heavy concentration on attention to detail that also includes the interior design and choice of materials.

Designing and modelling at Mercedes-Benz Design has a great deal to do with creativity and the work of artists – though art for art's sake is certainly not the intention behind this sculpture! The form of an automobile that suggests itself here in such an artistically sophisticated and encoded way is only vaguely perceptible. Nonetheless the basic proportions challenge the onlooker to interpret the shape of the future, real product that may be nearing the end of its flowing design process. Amazement and speculation in equal measure.