

# The BMW Z4 M Coupé. Contents.



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The following text describes the level of equipment and options in Germany.  
Equipment may vary in other countries, depending on national specifications.

# 1. The BMW Z4 M Coupé: (Short Version)



The BMW Z4 M Coupé is a sports car for very special moments – moments the driver may well experience every kilometre, every mile on the road. Uncompromising, purist, and extremely powerful, this two-seater offers an unparalleled experience of undiluted dynamism both in everyday traffic and on the race track. Without doubt, its prize-winning 3.2-litre straight-six M power unit developing maximum output of 252 kW/343 hp offers performance of the highest conceivable standard.

Over and above the sheer power of the engine also borne out by maximum torque of 365 Newton-metres or 269 lb-ft, the BMW Z4 M Coupé stands out in particular through its chassis and suspension designed and built to convey enormous power safely and smoothly to the road. Indeed, the unique character of this equally unique sports car is expressed most convincingly by its high standard of agility and spontaneity in responding to all of the driver's commands.

While obviously being closely related to the BMW Z4 M Roadster, this fixed-roof two-seater goes its own way also in its design and styling. The low and sleek curvature of the roof typical of a coupé and the striking look of the car from the side make this new model unmistakable at first sight.

The BMW Z4 M Coupé is now bringing to life the Concept Car presented by BMW at the 2005 Frankfurt Motor Show in its most sporting and dynamic rendition. A great wish and sincere hope expressed by many sports car enthusiasts everywhere is therefore now becoming reality faster than expected. Entering the market at the same time as the BMW Z4 Coupé 3.0si, the BMW Z4 M Coupé is the most impressive proof of the huge dynamic potential and performance this new model variant is able to offer.

## **Athletic and authentic – the design of the BMW Z4 M Coupé.**

Even at very first sight, the BMW Z4 M Coupé offers a clear impression of the purist driving pleasure this unique car is able to provide. The entire front section of the BMW Z4 M Coupé – like that of the BMW Z4 M Roadster – emanates

a thrilling sense of power and forward-urging dynamism. This impression is accentuated above all by the powerful-looking front air dam with its distinct x-shaped lines and openings, the large air intake scoops in the engine

compartment lid, the deeply embedded radiator kidney grille, and the two striking precision lines running along the car.

Seen from the side, the design of this two-door sports machine with its sleek roof extending down to the rear in typical coupé style and the “Hofmeister kick” characteristic of all BMW models, looks particularly dynamic and powerful.

This characteristic appearance is further accentuated by the passenger cell moved far to the rear and the lowered contour of the roof in the middle. Ultimately, therefore, both the lines of the car and its proportions convey the same convincing message: the BMW Z4 M Coupé is low, dynamic, and fast.

The BMW Z4 M Coupé is also unmistakable, dynamic and full of character from behind: The passenger compartment merges dynamically into the rear end of the car, giving the rear wheel arches a particularly powerful and muscular look. The horizontal diffuser as well as the chrome-plated twin tailpipes positioned far to the outside add a particularly striking touch. The luggage compartment offers up to 300 litres or 10.5 cubic feet capacity, giving the BMW Z4 M Coupé very generous and easily accessible space for a sports car.

#### **High-speed power unit for incomparable performance.**

BMW's new two-seater is powered by the same prize-winning 3.2-litre straight-six M engine also featured in the BMW M3 and the BMW Z4 Roadster. The engine's performance figures are indeed impressive at very first sight: 3,246 cc displacement, 252 kW/343 hp maximum output at an engine speed of 7,900 rpm, maximum engine speed of 8,000 rpm. And no less than 80 per cent of the engine's maximum torque of 365 Newton-metres or 269 lb-ft is available at the driver's request from just 2,000 rpm.

Output per litre is 77.8kW or 106 hp, giving the BMW Z4 M Coupé a power-to-weight ratio of just 5.6 kilos or 7.6 lb/kW. Acceleration to 100 km/h comes in 5.0 seconds and top speed is limited electronically to 250 km/h or 155 mph.

#### **The pleasure of shifting gears six times over.**

The concept of a high-speed engine is particularly impressive whenever the torque available is converted into optimum thrust and power on the road by a short overall transmission ratio. And precisely this is what the BMW Z4 M Coupé has to offer, with its six-speed manual gearbox laid out for optimum performance throughout the engine's entire gearshift and speed range. Short gearshift travel, precise action of the shift lever, and close increments between the six gears – these are the typical features of this outstanding transmission.

### **Optimum conditions for perfect suspension.**

The superior engine and drivetrain of the BMW Z4 M Coupé are matched by an equally superior high-performance suspension. In its basic concept, the suspension is identical to that of the BMW Z4 M Roadster, but has nevertheless been geared specifically to the particular requirements of the fixed-head model. Just how perfectly all the car's components harmonise with one another is clearly proven by the BMW Z4 M Coupé on the Nordschleife, the Northern Circuit of Nürburgring, where the Z4 M Coupé outperforms the lap times of even the BMW M3 and the BMW Z4 M Roadster.

The chassis and suspension of the BMW Z4 M Coupé is identical in many respects to the chassis and suspension of the BMW M3, with a wide range of shared components. One example is the M differential lock on the rear axle, while the highly effective 18-inch compound brake system comes straight from the BMW M3 CSL. BMW's DSC Dynamic Stability Control, in turn, supplements the suspension with its significant safety reserves whenever the going gets critical.

### **Wheels in exclusive design.**

Offering a particularly light but dynamic look, the exclusive double-spoke aluminium rims allow the beholder to fully admire the 18-inch disc brakes, thus emphasising the high-performance character of this very special two-seater. The high-performance 225/45 ZR18 tyres at the front and 255/40 ZR18 tyres at the rear offer an ideal match for the exceptional power and dynamism of the car.

### **The body: light and strong all in one.**

The safe and dynamic driving qualities of the BMW Z4 M Coupé are also attributable to the extremely strong, torsionally and flexurally stiff structure of the body. With torsional stiffness of 32,000 Nm/°, the body of this new model sets the standard in its segment, offering both driver and passenger passive safety of the very best: Benefiting from perfect interaction of the body and safety systems, the car's occupants enjoy perfect protection in virtually any kind of accident.

### **The interior: concentrating on sports motoring.**

The interior of the BMW Z4 M Coupé combines a modern ambience in sporting and purist look with a supreme standard of sophisticated style, design and function all coming together in one harmonious concept. The cockpit is tailored consistently to the driver, with all controls and instruments placed perfectly on or around the steering wheel for supreme ergonomics.

Multi-function buttons featured as standard help the driver concentrate on the essential, operating the telephone or audio system at the touch of a finger, without having to take his hand off the steering wheel.

The M sports seat offers perfect body support and gives the driver reliable feedback at all times. The M leather steering wheel with perfect grip, in turn, features a strong rim profile and thumb contours for secure grip and precise handling at all times. The speedometer and rev counter naturally come with red needles in the typical style of BMW M. Another highlight of the M models is the variable engine speed pre-warning field in the rev counter, the yellow pre-warning and red warning field limiting the engine speed allowed in each case as a function of current engine oil temperature. So with the temperature of the engine oil increasing, the engine is able to rev faster and move up to a higher speed range. And last but certainly not least, the BMW Z4 M Coupé stands out from the BMW Z4 Coupé 3.0si also in the design of the gearshift lever knob, the door cutout trim strips, the air conditioning and fresh air nozzles finished in galvanic alloy-treated pearl gloss chrome, as well as the door openers and closing handles.

#### **Colours and design variants.**

A selection of four leather colours, two choices of soft nappa leather varying in its degree of finish, as well as three exclusive trim variants ensure supreme style and individual freedom within the passenger compartment. Three exclusive M paintwork colours and five additional exterior colour options enable the customer to give his – or her – BMW Z4 M Coupé a very personal touch.

#### **Wide range of standard equipment.**

The BMW Z4 M Coupé comes with static bi-xenon headlights for optimum high- and low-beam quality ensuring perfect visibility under all conditions. Two light rings in the headlights, in turn, provide that typical look so characteristic of BMW. Another standard feature is the two-stage Brake Force Display significantly enhancing traffic safety whenever required: With the driver braking hard or with the ABS anti-lock brakes intervening, the area covered by the rear lights is enlarged accordingly.

Further standard features include automatic air conditioning, a CD radio, an on-board computer, sports seats in leather, a multifunction steering wheel, as well as a tyre pressure warning system.

#### **Optional: top-end HiFi systems.**

As an alternative to the “regular” sound system, two HiFi systems available as an option ensure truly excellent brilliance and performance at all times. The high-end Professional system even uses the most advanced Carver technology able to generate enormous sound pressure by combining the volume of the right and left subwoofers.

**Two navigation systems with DVD memory as an option.**

The Business navigation system integrated in the instrument panel uses a DVD comprising geographic data for the whole of Europe. A further highlight is that this system also enables the driver to operate the on-board computer, radio and telephone from the same control panel.

The Professional navigation system, in turn, comes with a 16 : 9 colour monitor adjustable or folding in entirely either electrically or by hand. And the use of innovative film technology on the surface of the screen makes the display clear and easy to read under all light conditions.

## 2. The BMW Z4 M Coupé: Supreme Driving Pleasure for the True Individualist.



The Ultimate Driving Machine – hardly ever before was this statement as appropriate as in the case of the BMW Z4 M Coupé, a two-seater conceived, designed and built for the true enthusiast wishing to conquer new dimensions of driving dynamics, enjoy every single mile on the road, and demonstrate his – or her – individual style at all times.

This thoroughbred sports car arouses powerful emotions not only with the lucky individual able to take the wheel of the BMW Z4 M Coupé. Rather, this outstanding new model is a genuine eye-catcher for everybody able to admire this driving machine in regular traffic. Its exciting but by no means pretentious look thrills not only the sports car enthusiast, but rather all beholders with a penchant for truly successful and unique car design. The new Coupé is recognisable at very first sight as a typical BMW, but also stands out clearly as an unparalleled high-performance sports car. Through its design alone, the BMW Z4 M Coupé clearly demonstrates the performance it is able to offer. At the same time the harmonious lines of the car reflect the well-balanced drive concept able to convey the tremendous power of the engine smoothly, safely and in genuine style to the road.

At the same time the BMW Z4 M Coupé clearly shows its close relationship to the BMW Z4 M Roadster: The front end and the lower rear section of both models demonstrate clear similarities, while at the side the BMW Z4 M Coupé stands out clearly from its Roadster counterpart, the striking roof, the typical lines of the fixed-head model around the rear side windows, and the large tailgate creating a unique look betraying the powerful character of this high-performance sports car at very first sight.

Through its supreme performance and unique agility, the BMW Z4 M Coupé impressively proves the supreme potential offered by the concept of a fixed-head sports car based on an open roadster: without doubt, this production model not just fulfils, but rather significantly outperforms the great expectations already aroused by the BMW Z4 Coupé Concept Car among countless sports car enthusiasts at the Frankfurt Motor Show in September 2005.

While a car of the likes of the BMW Z4 M Coupé will only rarely be required to prove its practical values under conventional conditions, the fact remains that the car's strongest and most convincing arguments also come to bear in everyday motoring. The BMW Z4 M Coupé offers driving pleasure of the highest calibre and proves its special character not only on the Nordschleife of the famous Nürburgring race track in Germany, but also demonstrates its fascinating agility when driving at a leisurely pace on a country road, as well as its virtually unlimited potential in conveying engine power into dynamic performance. So in a nutshell, the look, engine output, and driving behaviour of the BMW Z4 M Coupé all add up to form a complete whole truly convincing in every respect, in every detail.

### 3. Design of the BMW Z4 M Coupé: Visible Emotion.



As a high-performance sports car offering superior safety even when driving to the utmost limit, the BMW Z4 M Coupé gives the experienced driver the option to enjoy a standard of dynamic performance otherwise to be found only in a racing car. And at the same time this unique two-seater, through its design, boasts unprecedented harmony of supreme sporting performance and a perfect, all-round aesthetic appearance. The BMW Z4 M Coupé clearly demonstrates its dynamic driving qualities and abilities, while though its powerful look and well-balanced proportions, it also bears out a high standard of supremacy. Ultimately, therefore, the BMW Z4 M Coupé represents the typical look of a thoroughbred sports car in particularly attractive design.

#### **An athlete with a striking face.**

Seen from the front, the BMW Z4 M Coupé exudes an inimitable look of dynamic performance. As on the “basic” model, the BMW Z4 Coupé, all lines on the engine compartment lid flow towards the kidney grille, while the contours of the air intakes moving up to the kidney grille from beneath guide your eyes more towards the wide track of the car.

The letter “X” formed at the front by these lines and air intake contours creates a dynamic, highly present and self-confident appearance. The BMW Z4 M Coupé thus looks as if it were literally hugging the surface, with its body resting firmly on the road below. The air scoop in the middle as well as the two air intakes at the sides clearly prove how much cooling air the engine and the brakes require, again providing a clear sign of the enormous power and dynamism which lurks within this muscular body.

Two striking precision lines add a further powerful contour to the engine compartment lid, the curvature formed in this way providing a taste from the start of the large and, in particular, high-performance drive unit to be found beneath the hood.

The two lines move out of the engine compartment lid on the level of the driver’s and front passenger’s seat, extending throughout the entire length of the engine compartment all the way to the kidney grille embedded very deep in the front end of the car to make the engine compartment look even longer than on the “standard” model. Curved, white direction indicator covers round off the dual headlights at the bottom, the position light made

up of a light conductor ring giving the M Coupé that night design so characteristic of BMW.

**The design of the car – a clear testimony to power and strength.**

Emerging from the A-pillars, the roof extends to the rear, sweeping slowly and gracefully into the tail of the car. Right in the middle of its roof, the BMW Z4 M Coupé has a characteristic inward curve so typical of many classic sports cars. Interpreted here in truly modern style, this classic feature gives the car its extremely low, dynamic, and fast look.

The side view has the silhouette typical of a sports coupé. The low-slung roof extending down elegantly to the rear and the “Hofmeister kick” on the rear side windows typical of the brand give the BMW Z4 M Coupé a truly outstanding visual touch again most characteristic.

This impression is further enhanced by the passenger cell moved far to the rear. Seen from the side, the BMW Z4 M Coupé retains its striking window graphics borne out by the rear side windows fitted firmly into the body in their particular design again typical of the brand. The white-and-blue BMW emblem accentuating the diagonal line in the front side panel, in turn, takes up and accommodates the white direction indicators at the side. And right next to the BMW logo, the “M” model designation bears testimony to the origin of this unique sports car.

**Seen from the rear: sheer power.**

The low-slung centre section of the roof is also to be admired from behind, accentuating the racing look of this new sports car. Further highlights are the extra-wide third brake light, the chrome-plated dual tailpipes placed far to the outside, and the horizontally-arranged diffuser in between. All this acts together to give the BMW Z4 M Coupé an unmistakable, sporting and characteristic look also from behind.

The greenhouse – the glazed section of the passenger cell – flows dynamically into the rear section, giving particular emphasis to the wheel arches accentuated in their powerful and muscular look. The rear lights, in turn, are the same as on the Z4 M Roadster, their light conductor rods forming one visual entity with the third, white brake light emphasising the sheer width of the car’s rear section particularly at night.

Offering capacity of up to 300 litres or 10.5 cu ft, the luggage compartment is truly impressive for a sports car, easily accommodating, as one example, two medium-sized golf bags. The integrated roll-up cover serves to conceal 245 litres or 8.6 cu ft of the luggage compartment in the interest of extra privacy.

You open the rear lid by means of a grab handle integrated in the BMW logo at the back of the car and also comprising the lock to the luggage compartment.

### **Eighteen-inch wheels in typical M design.**

The dynamic wheel arches powerfully highlight the light-alloy rims developed exclusively for the BMW Z4 M Coupé and its open-air counterpart. In their design, the wheels follow the striking body language of the car itself, the use of five double spokes clearly relating the car to the BMW M family. With their look of lightness and an almost free, unobstructed view right through to the 18-inch disc brakes, the rims underline the high-performance character of the BMW Z4 M Coupé.

### **The interior: concentrating on sports motoring.**

The interior of the BMW Z4 M Coupé boasts a modern ambience in sporting, purist, but at the same time very sophisticated design and flair. This overall design and the function of the interior come together to provide a harmonious all-round concept, the attractive M leather steering wheel, for example, with its powerfully contoured rim profile and the thumb contours on the rim itself, ensuring safe grip and precise handling at all times.

The circular instruments for the speedometer and rev counter are absolutely clear and easy to read. The colour of the instruments is again typical of BMW M philosophy, red needles being combined with permanent white illumination. The M logo, in turn, is to be admired not only on the aluminium entry trim, but also on the leather headrests, the steering wheel itself, and on the illuminated gearshift lever knob. Further distinctions versus the “regular” model are the air conditioning and fresh air adjusters finished in galvanically refined pearl gloss chrome also featured on the door openers and door closing handles.

### **Colours and design variants.**

The interior is available in the four colours Black, Imola Red, Sepang Bronze Light and Sepang Brown, with two varying ranges of soft nappa leather trim. Exclusive seam patterns in perfect finish round off the exclusive impression of both leather trim options.

Moving on to the car’s hard trim features, the customer has the choice of Hexagon aluminium as well as optional Madeira Red Brown walnut or Black carbon structure leather. The roof lining is made of a high-quality Anthracite-coloured fabric with contours following the low-slung centre section of the roof to give the car a truly sporting ambience also inside.

A particularly convenient amenity is the special compartment for glasses in the upper section of the windscreen frame. The centre section of the rear bulkhead is curved down slightly to the inside, reflecting the concave

curvature of the roof. This not only enhances visibility to the rear, but also gives the

interior a particularly generous, open impression. The luggage compartment, finally, is finished in a sophisticated, high-quality Anthracite-coloured delour material, while the roll-up cover comes in Black.

Three exclusive M exterior colours – Sepang Bronze metallic, Interlagos Blue metallic, Imola Red non-metallic – as well as five paintwork colours carried over from the BMW Z4 Coupé give the customer a wide range of choice. Perfectly supplementing the range of interior colours and features, these exterior colours enable the true aficionado to really customise his BMW Z4 M Coupé in every respect.

## 4. Powertrain of the BMW Z4 M Coupé: Powerful Passion.



The BMW Z4 M Coupé is certainly the most sporting and dynamic rendition of BMW's new two-seater. And this is no surprise, considering that the car is powered by what is arguably the most well-known high-performance power unit proudly bearing the letter "M" acknowledged as truly outstanding by connoisseurs everywhere – the 3.2-litre straight-six also featured in the BMW M3. Interacting perfectly with the light and extremely stiff bodyshell, the excellent suspension and short overall transmission ratio, this high-speed, high-output engine guarantees optimum performance, supreme dynamics, and truly outstanding agility. And at the same time the M high-speed engine develops all its power smoothly but dynamically like a turbine: No other production engine of this size offers the same irresistible thrust and momentum as the six-cylinder featured in the BMW Z4 M Coupé.

### **The M high-speed engine concept – already the winner of five engine "Oscars".**

The M high-speed engine concept generates enormous power and thrust from high engine speeds. Indeed, it does this job so perfectly that BMW's 3.2-litre six-cylinder has received the "Engine of the Year Award" as the best power unit in its class no less than five times in a row, thus proudly bringing home the engine "Oscar" in the automotive industry.

The car's performance figures clearly prove that the M Coupé boasts a true super-athlete within its long and sleek engine compartment: Displacing 3,246 cc, the six-cylinder develops maximum output of 252 kW/343 hp at 7,900 rpm and revs up to a top speed of 8,000 rpm. A particularly important point is that the engine develops this irresistible power and performance throughout a wide useful speed range, with no less than 80 per cent of its maximum torque coming at just 2,000 rpm and the peak level of 365 Newton-metres or 269 lb-ft following at 4,900 rpm.

With its output per litre of 77.6 kW or 106 hp, the 3.2-litre straight-six also enters new dimensions in this respect, with three-digit output figures per litre so far being restricted almost exclusively to purebred racing engines.

### **Shattering performance.**

Each of the 343 horses in the BMW Z4 M Coupé is required to move only 4.1 kilos or 9.0 lb. Obviously, this means truly outstanding performance on the road, with the BMW Z4 M Coupé accelerating from a standstill to 100 km/h

in just 5.0 seconds and completing the sprint from 80–120 km/h in fourth gear in the same ultra-fast time of five seconds flat. Top speed, finally, is limited electronically to 250 km/h or 155 mph.

### **The high-speed power unit – the perfect principle for supreme dynamics.**

There are several ways to achieve optimum power and performance in engine technology: The first – obvious – option is to increase engine power simply

by making the engine larger. But this also means extra weight, larger and bulkier dimensions, as well as limited agility of the car. A second possibility is to choose a turbocharger or compressor, the disadvantage in this case being that a turbocharged or supercharged engine generally leaves a lot to be desired in terms of spontaneity – that is a rapid response of the engine to movements of the gas pedal – not to mention the relatively high fuel consumption of such an engine.

This leaves the third option – the concept of a compact, high-speed normal-aspiration power unit. And indeed, this has always been the ideal solution for every BMW M engine with its highly sporting character: to increase engine output by running at higher engine speeds.

This concept meets the greatest demands in terms of spontaneity, maximum performance and engine effectiveness, and at the same time optimises the agility of the entire car. The fact nevertheless remains that the high-speed engine concept is more demanding in technological terms and therefore

more challenging in practice – considering that the engine pistons run at a speed of more than 24 metres or 79 feet per second when revving at 8,000 rpm. By comparison, while the crankshaft in a Formula 1 power unit rotates up to 18,000 times a minute or even faster, piston speed of approximately 25 metres or 82 feet per second is only slightly higher than on a BMW M series production engine. And an essential point to be considered in this context is that an M engine is required to offer a long service life, whereas a Formula 1 power unit only has to last two racing weekends – very little compared with the reliability required of an M power unit throughout a long running life on the road.

### **Power – more than just high output.**

What really counts in determining a car's performance is the power and thrust that actually goes to the drive wheels. This crucial factor follows from the combination of engine torque and the overall transmission ratio, where again

a high-speed engine concept goes together perfectly with an optimum transmission and final drive ratio for impressive thrust and performance on the road.

### **Crankcase made of high-strength perlite casting.**

Being required to run at high speeds and under high combustion pressure, the crankcase of the engine featured in the BMW Z4 M Coupé is made of high-strength perlite casting. The graphite-coated cast aluminium pistons with their machined piston crowns are cooled by oil spray nozzles, the connecting rods are forged-steel pre-cracked units.

### **Cylinder head with roller-type followers.**

The single-piece four-valve cylinder head is cast at BMW's light-alloy foundry at the Landshut Plant in a steel die and features integrated air ducts for

the injection of supplementary air required for quickly warming up the catalytic converter in the interest of optimum efficiency. Valve management, in turn,

is ensured by very precise roller-type rocker arms, with valve clearance having to be adjusted only on the occasion of a major inspection – which means service intervals, depending on driving conditions, of up to 40,000 kilometres or 25,000 miles.

### **Optimum engine management.**

A specially developed engine control unit masterminds all functions within the high-performance engine featured in the BMW Z4 M Coupé. This sophisticated system boasts a 32-bit micro-controller operating at high cycle frequency and two additional timing co-processors required to handle the complex function data and, in particular, the high maximum rev speed of the engine. At the same time this sophisticated engine management also helps to improve emission control, offering an overall capacity of no less than 64 million instructions per second.

The unit controlling the camshaft adjustable infinitely on both the intake and outlet side (double-VANOS) is fully integrated into the overall system.

Further fully integrated features are the high-pressure oil supply, ongoing, permanent oil level control, an electronic immobiliser, electronic throttle butterfly management, as well as an elaborate diagnostic system for maintenance and service. The control unit calculates the ignition timing

individually for each cylinder and operating stroke, the optimum injection volume, and the ideal injection point. The optimum cam spread is then calculated and set accordingly, synchronised to all other operating conditions.

### **High-pressure double-VANOS for an optimum charge cycle.**

BMW's variable double-VANOS camshaft management ensures an optimum gas cycle in the six-cylinder power unit, allowing extremely short adjustment times. In practice, this means more power, an even better torque curve, optimum engine response, greater fuel economy, and cleaner emissions.

### **Flow-optimised intake side.**

Again reflecting racing technology, each cylinder comes with its own throttle butterfly. And to make sure the engine responds smoothly and sensitively at low speeds, while maintaining all of its spontaneity whenever the driver requires maximum power, the throttle butterflies are controlled fully electronically. This is done by scanning the position of the gas pedal and evaluating the data received no less than 200 times a second with the help of two potentiometers.

The engine management responds to any changes in running conditions and modifies the position of the throttle butterflies accordingly, taking only 120 milliseconds to open the butterflies to their maximum position. At the same time, electronic throttle butterfly control ensures perfect harmony in the transition from override to part load running conditions and vice versa.

### **Twin-chamber exhaust system.**

The two fan-type manifolds on the exhaust system are designed for equal length and diameter, and serve to keep counter-pressure to a minimum. The entire exhaust system extends in double-chamber arrangement through the silencers all the way to the four tailpipes so characteristic of a BMW M car.

A further essential point is that the BMW Z4 M Coupé develops the kind of sound you will expect from a car of this kind, especially with its four tailpipes at the rear: The exhaust system churns out that powerful and rough sound so typical of a genuine power unit from BMW M.

Each exhaust line comes with two tri-metal-coated, flow-optimised metal catalysts combining minimum pressure loss, a high level of mechanical strength and stiffness, as well as a short response time after starting the engine cold. The car's exhaust emissions naturally fulfil the European EU4 standard, and the high overall level of engine efficiency guarantees not only supreme power and torque, but also superior fuel economy: Despite the car's outstanding performance, fuel consumption in the EU test cycle is only 12.1 litres premium plus/100 km, equal to 23.3 mpg Imp.

**Even more driving dynamics at the touch of a button.**

Every time the driver starts the engine, the BMW Z4 M Coupé initially comes with a very smooth and finely adjustable setting on the gas pedal typical of a genuine sports car. Then, pressing the Sports button on the electronic butterfly control, the driver is able at any time to activate a more progressive control line for the ratio between gas pedal travel and throttle butterfly opening. This also switches over the dynamic transition functions on the electronic engine management for even greater spontaneity, the important benefit for the driver being that in this mode the BMW Z4 M Coupé responds even more spontaneously to his foot on the accelerator.

**The pleasure of shifting gears six times over.**

The high-speed engine concept offers particularly impressive and positive results whenever the engine is combined with an appropriate transmission. Indeed, this is the only way to convert the superior torque of the engine into optimum thrust and momentum by means of a short overall transmission ratio.

The six-speed manual gearbox meets all these requirements perfectly: Interacting with the final drive, the six-speed transmission ensures optimum performance throughout the engine's entire gearshift and engine speed range. The typical features of this six-speed gearbox are short gearshift travel, precise shift lever control, close gear increments, and a high standard of running smoothness.

## 5. Chassis and Suspension of the BMW Z4 M Coupé: Driving Pleasure to the Limit.



In the process of conveying the power and torque of its high-performance engine to the road, the BMW Z4 M Coupé enters new dimensions in driving dynamics. Obviously, this also calls for a suspension fully compatible with the exceptional output of the engine.

In its basic concept and configuration, the chassis and suspension of the BMW Z4 M Coupé is identical to that of the BMW Z4 M Roadster but has nevertheless been tailored specifically to the car, taking the positive effects of the extremely stiff and flexurally stable bodyshell into account. The result is supreme interplay of engine and suspension rarely seen in such perfection.

Just how intensely the driver of the BMW Z4 M Coupé can enjoy, use and feel this harmony of the drive concept, comes out particularly clearly on the 20.8-kilometre-long Nordschleife of the legendary Nürburgring race track, arguably the most demanding racing circuit in the world.

Going all-out on this famous race track, the BMW Z4 M Coupé is able to outperform even the lap times of the BMW M3 and BMW Z4 M Roadster already acknowledged as truly outstanding. And compared with its competitors, BMW's new Coupé offers truly the best overall package in terms of driving dynamics, with all-round harmony absolutely fascinating not only on the race track, but also in everyday motoring.

### **Perfect handling for superior safety.**

With the engineers at BMW M GmbH focusing in the development of their high-performance cars not just on straight-ahead dynamics, but also on lateral dynamics and optimum handling in every respect, BMW M Cars are incredibly fast and safe on both road and track. Indeed, the chassis components of the BMW Z4 M Coupé offer ideal conditions for this kind of superiority.

Many features have been carried over from the chassis and suspension of the BMW M3, which also boasts an M differential lock on the rear axle, just like the BMW Z4 M Coupé. The entire brake system, in turn, comes from the BMW M3 CSL super sports athlete.

In its basic geometry and dimensions the new Coupé is identical to the BMW Z4 M Roadster, with track measuring 1,486 millimetres or 58.50" at the front and 1,516 millimetres or 59.68" at the rear.

Compared with the BMW Z4 Coupé, the M chassis is 10 millimetres or almost 0.4" lower. With their greater negative camber, the wheels, finally, are perfectly adjusted to the even higher standard of driving dynamics and higher loads.

**Engine at the front, drive wheels at the rear – simply perfect for supreme dynamics.**

The lower centre of gravity and rear-wheel drive offer optimum conditions for harmonious driving behaviour, supreme traction and performance on the road, as well as extremely high speeds in bends. And in achieving this supremacy, BMW maintains the classic drive concept of the engine at the front and the drive wheels at the rear not just for reasons of tradition, but rather because of the physical benefits this concept has to offer.

The fundamental advantage of rear-wheel drive lies in the perfect balance of stability and agility. Both of these factors depend on the car's inertia momentum which, in turn, depends on vehicle mass and mass distribution. And both of these factors come to bear on the BMW Z4 M Coupé, with both low mass and optimum mass distribution thanks to the engine and the gearbox, as the heaviest individual components, being very close to the car's centre of gravity. A further advantage is that rear-wheel drive keeps the steering completely free of drive forces, helping to give the steering on this – and, indeed – every BMW its outstanding precision.

**Well-balanced axle load for superior agility and spontaneity.**

Yet a further prerequisite for the extreme agility and spontaneity shown by the car in responding to the driver's commands is the well-balanced distribution of axle loads. For to safely master the agility of such a powerful sports car, all four wheels should maintain the same, firm contact on the road. Precisely this is why the weight of the BMW Z4 M Coupé is distributed almost 50 : 50 on the front and rear axle, perfect axle load distribution of this kind helping to both enhance traction and the effect of the brakes.

**Agile and with active driving qualities – BMW all the way.**

A low centre of gravity, rear-wheel drive, well-balanced axle loads, a long wheelbase – together with the torsionally stiff body and wide track compared with the body dimensions as a whole, these are the ingredients for an extremely agile and stable suspension. In all, therefore, the BMW Z4 M Coupé sets a new highlight in its class in terms of both agility and driving dynamics.

### **Newly developed front axle.**

The single-joint front axle with bolted-on McPherson spring struts created for the BMW Z4 M Roadster and BMW Z4 M Coupé features forged track control arms made of aluminium serving to reduce unsprung masses to a minimum. The very stiff and again weight-optimised mounts connecting the chassis components to the body of the car, in turn, enhance both steering and driving precision to a new standard.

The front axle subframe accommodates the steering transmission, the anti-roll bar, and the track control arms. In its U-shaped configuration, the subframe is reinforced by an aluminium panel measuring 3 millimetres in thickness and serving to maximise the lateral stiffness of the entire structure. This ensures a particularly smooth and precise response at all times, improves the car's agility and transmits dynamic wheel forces to the body with maximum efficiency. The result is minimum dynamic and drive forces under high lateral acceleration, helping again to improve both driving dynamics and driving behaviour.

With separate mounts for the springs and dampers, the front axle supports ensure precise wheel guidance and efficiently filter out all bumps and rough spots on the road. Arranged geometrically, the mounts and supports serve to reduce wheel inclination and increase the castor angle, giving the BMW Z4 M Coupé superior agility and allowing reliable feedback to the driver, without in any way neglecting the need for comfort.

### **Extremely stable rear axle.**

The central arm rear axle with its twin-sleeve gas pressure dampers and anti-roll bar runs on two track arms and one longitudinal arm on either side. The upper track control arm is made of aluminium, the longitudinal arm rests in each case on the centrepoin in the body of the car. A V-bar extending from the rear axle to the floor of the bodyshell provides additional strength and reinforcement. In all, this elaborate construction ensures very safe handling and prevents any uncontrolled steering behaviour of the car.

Both the spring and damper components as well as the anti-roll bars are extra firm and sporting in their set-up. This ensures excellent roadholding at all times and allows direct feedback to the driver. Good and solid support of the body, in turn, keeps body motion and vibration amplitudes, the roll angle and pitch movements to a minimum, giving the driver a safe and secure feeling even when driving fast and dynamically. A further advantage is that you are able, under such conditions, to accelerate quickly and rapidly out of a bend.



The BMW Z4 M Coupé maintains its extremely high standard of yaw stability even in load changes on a winding road or when applying the brakes in a bend, thus offering superior safety also at high speeds without the DSC chassis control system being required to intervene. Both roll comfort and acoustics are above-average.

**Supreme precision from the steering.**

The rack-and-pinion steering on the BMW Z4 M Coupé is supported by hydraulic power assistance. This allows the driver to turn the steering wheel very quickly and dynamically, offering appropriate benefits when driving in sporting style. And together with the special front axle kinematics reflecting the high standard of BMW M, the steering also ensures optimum feedback

to the driver as well as high precision, directional accuracy, as well as a spontaneous response to the driver's commands.

**Eighteen-inch compound high-performance brakes for maximum stopping power.**

Driving dynamically, you need powerful brakes whenever necessary – which is precisely why the BMW Z4 M Coupé comes with a particularly powerful brake system carried over from the BMW M3 CSL: This is an 18-inch compound high-performance brake system with floating callipers. The inner-vented friction ring on the grey cast iron brake disc is connected to the aluminium brake cover in “floating” arrangement via stainless-steel pins cast into the structure. This significantly reduces loads acting on the brake disc on account of thermal tension, increasing the service life of the brake disc accordingly.

The result is an even higher standard of fading-free stability particularly under extreme loads – that is at the high operating temperatures typically encountered when driving fast and dynamically. In particular, floating arrangement of the brake discs prevents any distortion of the brakes, a defect which might otherwise severely impair the brake's stopping power since distorted, “wobbly” brake discs can no longer be applied perfectly to the brake pads in the interest of optimum deceleration.

To ensure optimum cooling of the entire brake system, the air flowing by is guided through the two outer air intakes in the front air dam and directed to the thermally most highly exposed sections of the brake.

Perforation of the friction ring reduces the weight of the brake discs by 0.7 kilos on each front wheel and 0.8 kilos on each wheel at the rear. The result is a further reduction of unsprung masses giving the chassis and suspension an even better and smoother response. And thanks to the specific arrangement and shapes of the holes drilled into the discs optimised

in a long series of elaborate tests, brake performance is truly excellent both in the dry and under wet conditions.

The front brake discs measure 345 millimetres or 13.58" in diameter and are 28 millimetres or 1.10" thick. The brake discs at the rear measure 328 millimetres or 12.91" in diameter and 20 millimetres or 0.79" across. The result is truly outstanding stopping power, the BMW Z4 M Coupé coming to a standstill from a speed of 100 km/h or 62 mph in just 34 metres or 111.5 feet, also thanks to the support provided by a 10-inch booster. So BMW's new Coupé ranks high up in the segment of thoroughbred sports cars also when it comes to brake power.

#### **Wheels in exclusive design.**

At the front, the BMW Z4 M Coupé comes on 8-inch wheels featuring 18-inch 225/45 ZR18 tyres, at the rear the car boasts 9-inch-wide wheels running on 255/40 ZR18 tyres. In terms of both the rubber compound and the tyre dimensions, the entire system serves to convey high side and longitudinal forces on both dry and wet roads with optimum precision, at all times giving the driver clear feedback on the car's dynamic driving conditions.

In their exclusive design, the light-alloy rims developed especially for the BMW Z4 M Coupé and BMW Z4 M Roadster follow the striking body language of the BMW Z4 as such, combining powerful curvature with precise lines. The double spokes, in turn, are characteristic of BMW M cars.

Through their "light" look and almost completely free vision to the extra-large disc brakes, these special wheels underline the high performance character of the BMW Z4 M Coupé. But at the same time the rims offer important "inner" values, the special geometry of the rim shoulder (extended hump, EH) preventing the tyre when losing pressure to slip off the rim, and thus ensuring the safe-stop principle characteristic of all BMW M cars.

#### **Tyre pressure warning system featured as standard.**

The tyre pressure warning system (TPW) permanently monitors the wheels while turning and gives the driver an alarm once a tyre starts losing pressure. Holes in the tyre measuring up to 6 millimetres or 0.24" in diameter can be sealed by the M Mobility System (MMS) consisting of a small compressor and a rapid-action sealant, which enables the driver to proceed to the nearest workshop at reduced speed (max 80 km/h or 50 mph), without having to change the wheel. Doing without an emergency or spare wheel, as well as the car jack, this system saves more than 20 kilos or 44 lb of weight now no longer required.

### **DSC Dynamic Stability Control for supreme driving pleasure to the very limit.**

Again reflecting BMW's usual philosophy, the chassis control systems featured on the Z4 M Coupé are not required to assist the suspension, but rather help to master critical driving situations at the extreme limit. This is simply because the M chassis and suspension already has very significant safety reserves to begin with and, as such, does not need additional assistance.

The BMW Z4 M Coupé features the latest generation of BMW's DSC Dynamic Stability Control, a sophisticated system more and more becoming the very "heart" of the car's electronic units comprising all electronic functions in automotive technology.

### **DSC with useful add-on functions.**

DSC was originally developed to enhance driving safety on slippery roads by applying the brakes on individual wheels as required – for example in an abrupt manoeuvre to avoid an obstacle on the road or with the car starting to become unstable in a bend. In the meantime the complete system and its functions have been substantially enhanced in the interest of even more sporting performance, safety, and comfort. As an example, ASC Automatic Stability Control integrated in the DSC system controls drive slip by reducing engine output, applying the brakes specifically on the drive wheel about to spin and thus re-stabilising the car. A further special function of DSC is CBC Cornering Brake Control with its asymmetric application of brake pressure to prevent the car from oversteering when the driver applies the brakes slightly in a bend.

Over and above these significant functions, the latest generation of DSC Dynamic Stability Control comprises a number of other useful features such as the Start-Off Assistant automatically applying the brakes briefly when setting off on an uphill gradient. This prevents the car from rolling back inadvertently in such a situation, relieving the driver from the need to pull the handbrake.

Yet another function is DBC Dynamic Brake Control maximising brake pressure in the event of a sudden deceleration manoeuvre with the driver requiring maximum stopping power.

### **DSC deactivated on demand.**

The various functions of DSC Dynamic Stability Control have been specifically modified to match the unique character of the BMW Z4 M Coupé, meeting all the requirements of a particularly sporting style of

motoring. The spontaneous response and superior dynamism of the engine, for example, combined with

the short overall transmission ratio, calls for extremely fast and sensitive engine and brake system management : The first requirement is to ensure superior yaw control also on slippery surfaces with a low frictional coefficient, the second necessity is to avoid any impairment of the additional dynamics ensured by the variable M differential lock, let alone any reduction of the proverbial sheer driving pleasure so typical of BMW. And if the driver wishes to do without DSC in a certain situation, he is able to deactivate the system completely.

#### **Differential lock replacing DTC.**

Instead of DTC Dynamic Traction Control, a sub-function of DSC featured in the BMW Z4 Coupé, the BMW Z4 M Coupé comes with a variable, engine speed-sensing M differential lock adjusting the behaviour and driving characteristics of the car to the even higher standard of driving dynamics. While DTC allows higher slip on the rear wheels “only” up to a median level of lateral dynamics of approximately 70 km/h or, respectively, lateral acceleration of approximately 0.4 g, the M differential lock builds up individual locking action on demand. This helps the experienced driver choosing a very sporting and dynamic style of motoring on roads with an average to high frictional coefficient to further enhance the positive features of rear-wheel drive in the interest of even greater dynamics and optimum performance.

#### **M differential lock with enhanced traction.**

On a conventional, engine-speed sensing differential lock the level of drive power actually conveyed to the road depends on the wheel with the lower frictional coefficient. Wherever the frictional coefficient is very low, for example on snow, the traction benefits are limited accordingly with this kind of lock due to the lower level of support momentum. By contrast, the variable M differential lock ensures maximum traction even in a very demanding situation on the road, that is with the frictional coefficients on the drive wheels varying by an extreme degree from one side of the car to the other.

#### **Superior drive power in every situation.**

A further advantage of the variable differential lock is the higher locking action built up immediately with an increasing speed differential between the two drive wheels. This means that even if one of the wheels loses traction completely (for example the inner wheel in a bend on a steep mountain pass), the car will not be deprived of all of its traction and drive power, with traction therefore being consistently maintained even under such adverse conditions.

**Up to 100 per cent locking action.**

A shear pump in the variable M differential lock builds up pressure spontaneously as soon as a drive wheel loses contact with the road or runs on a very slippery surface building up a difference in speed between the drive wheels. This pressure is passed on by a piston to a multiple-plate clutch, with drive power being conveyed to the wheel with better grip as a function of the difference in speed. In an extreme case, therefore, the full drive power of the engine will be transferred to the wheel with a better frictional coefficient. Once the difference in speed between the two wheels decreases, pump pressure will drop accordingly and locking action will decrease in the process.

This self-controlling pump system is maintenance-free and is filled with a highly viscous silicon fluid. The big advantage for the driver is that he is able to set off in his car much better and more smoothly on a surface with significantly different frictional coefficients on the two drive wheels, benefiting from good traction even under such adverse conditions. And last but certainly not least, the variable M differential lock also ensures a significant improvement in handling and driving stability.

## 6. Body and Passive Safety of the BMW Z4 M Coupé: Strong Athlete.



The body of a car forms the link connecting the chassis and suspension, the brake system, and the drivetrain. A high-performance car such as the BMW Z4 M Coupé requires a very stiff and torsionally stable bodyshell in order to safely convey the power of the engine on to the road, the body itself thus making a significant contribution to the car's driving dynamics.

Being based on the BMW Z4 M Roadster, the BMW Z4 M Coupé is extremely stiff, since it was originally conceived as an open sports car. Indeed, the BMW Z4 M Roadster is already the leader in its class when it comes to body stiffness in an open-air sports car of this calibre.

Achieving the best conceivable results was also the objective in developing the BMW Z4 M Coupé, benefiting from the extra stiffness provided by a fixed roof. The result is an extremely stable body in terms of both torsional and flexural stiffness through which BMW's new Coupé again sets standards in its segment with unparalleled and unprecedented torsional stiffness of 32,000 Nm/°.

This supreme stiffness is provided by the body-in-white featuring so-called Y-bars, engine support elements splitting up ahead of the bulkhead into one section leading to the side-sills and the other section leading to the centre tunnel. Reinforcement struts and panels in the underfloor, on the spring strut domes, and around the windscreen frame serve to enhance torsional stiffness to an even higher level.

A further advantage of the BMW Z4 M Coupé is the low weight of the car's body: Despite the fixed roof and the large rear window, the BMW Z4 M Coupé weighs only 1,415 kilos or 3,120 lb, just 5 kilos more than the BMW Z4 M Roadster. This low weight and the high power of the engine provide a truly outstanding power-to-weight ratio of just 6.6 kg or 14.5 lb per kilowatt of engine power.

### **Superior safety for driver and passenger.**

Thanks to the light but nevertheless stiff body of the car, both the driver and passenger in the BMW Z4 M Coupé benefit from optimum passive safety of the highest standard. Here again, the car's close relationship to its Roadster

counterpart provides an ideal starting point, the A-pillars featuring ultra-strong steel tubes in the Roadster serving to form a sturdy and safe rollbar supplemented in the Coupé by an additional rollover structure in the form of the fixed steel roof.

This entire construction is further enhanced by the ultra-strong body crossbar on the bulkhead. Crash-optimised foot support areas serve furthermore to minimise any intrusion from outside into the passenger compartment.

Relatively long deformation elements in steel shell structure are bolted on to the front longitudinal arms to hold the bumper system properly in position. This prevents damage to the body of the car in minor bumps, keeping the cost of repair to a minimum.

#### **Interacting safety systems.**

A total of four frontal and side airbags is controlled and masterminded by the car's central safety electronic system. Where required, system satellites activate the airbags and belt latch tensioners as a function of crash conditions and safety requirements.

All of these safety modules measure and calculate forces and impact conditions independently of one another, reacting independently and monitoring each other in the process. They also serve to separate the battery safety terminal, switch off the alternator and fuel pump, open the car's central locking, and switch on both the interior lights and hazard warning flashers whenever required.

On cars fitted with a telephone and BMW's Professional or Business navigation system, the BMW Assist telematics service automatically sends out an emergency call in the event of an accident, informing rescue services of the current location of the car and establishing a voice link to the emergency centre.

#### **High precision in the interest of driving stability and superior performance.**

The BMW Z4 M Coupé benefits from its fixed roof also in terms of aerodynamics. Indeed, even the underfloor of this high-performance two-seater has been optimised in terms of aerodynamic and streamlining, the venturi front end reducing lift forces on the front axle. The specially guided flow of air along the underfloor, in turn, serves to cool both the gearbox and rear axle with maximum efficiency. And last but certainly not least, the diffuser at the rear also enhances the car's aerodynamics by

drawing air out of the  
final drive.

## 7. Equipment of the BMW Z4 M Coupé: Exclusive and Authentic.



Enjoying life in the BMW Z4 M Coupé, the driver and passenger sit low down, far behind the car's centre of gravity and rotation. This gives them a direct experience of the car's movements and makes particularly tight bends a truly impressive highlight offering enhanced driving pleasure.

A further point is that in a particularly dynamic and sporting car the driver's seat always serves to provide an important input function. It passes important signals on to the driver, giving him, via the seat, direct and intuitive feedback on the car's current driving conditions, its straight-ahead and lateral acceleration. Particularly the surface of the road is conveyed to the seat and, accordingly, to the driver in a sports car with a firm and dynamic suspension set-up.

### **The M sports seat – optimum support and perfect body contour in every situation.**

The M sports seats featured in the BMW Z4 M Coupé offer excellent body support and a wide range of adjustment allowing even the very short and very tall driver to find their perfect seat position. To give the driver optimum feedback on road conditions and the current driving situation, the M sports seat is firmly padded without being uncomfortable. Through its well-balanced construction, it allows the driver to cover even long distances free of fatigue.

Apart from the wide range of adjustment options on the seat, the steering column adjustable for reach and angle in the BMW Z4 M Coupé also helps the driver find his – or her – perfect seating position. The M leather steering wheel, in turn, offering optimum grip, features a thick and firm rim profile and thumb contours on the rim for precise handling and perfect control. Multifunction buttons help the driver concentrate on the actual process of driving the car, operating the telephone or radio at the touch of a button on the steering wheel without having to move his hands anywhere else.

### **The cockpit: Concentrating on the driver.**

The cockpit is tailored consistently to the driver, all controls and instruments are positioned in appropriate ergonomic arrangement either on or around the steering wheel. The dominating circular dials are the speedometer and rev counter housed within binnacles – an homage to the classic sports car – and thus preventing annoying reflections on the windscreen. The instruments themselves are illuminated in white light.



An innovation featured only in BMW M cars is the yellow pre-warning and red warning field in the rev counter, limiting the speed range allowed, whenever appropriate, as a function of the current engine oil temperature: With engine oil temperature increasing, the useful speed range grows accordingly. This allows the driver to take the current operating temperature of the engine into account in his use of the gas pedal.

The rev counter and speedometer come with white numbers on a black face and needles in the traditional red colour so typical of BMW M.

The LCD on-board computer display is integrated in the speedometer, the fuel gauge and oil temperature gauge are housed in the rev counter. Three rotary knobs on the centre console of the dashboard finished in very attractive pearl gloss chrome serve to control the heating and air conditioning. Just above these knobs is the operating panel for the radio or HiFi system.

**Generous storage spaces within the interior.**

The BMW Z4 M Coupé offers a wide range of storage spaces for all kinds of travel utensils varying in size – a glove compartment, two fixed-position pockets in the doors, as well as a large compartment in the rear bulkhead with a capacity of approximately 10 litres. To the right and left of this central compartment there are two further boxes in the bulkhead, each taking up a volume of 3.7 litres and serving to accommodate the subwoofers whenever the BMW Z4 M Coupé is fitted with the HiFi system available as an option. A small storage box behind the handbrake lever conveniently holds coins for parking or similar items, the cupholders in the instrument panel fold out into position and adjust easily in a swift operation to cups or cans of various size.

**Bi-xenon headlights for optimum visibility.**

The BMW Z4 M Coupé comes as standard with static bi-xenon headlights for an optimum low and high beam. The specific contours of each beam – high and low – are maintained with optimum precision by a shutter swivelled electromagnetically whenever required over the beam in front of the xenon bulb. And to avoid the risk of dazzling oncoming traffic, the system comes with automatic headlight range control. Two light rings form the car's position lights at either side, carrying over this feature so typical of BMW also to the BMW Z4 M Coupé.

### **Two-stage Adaptive Brake Lights for enhanced safety.**

Two-stage Adaptive Brake Lights, an innovation by BMW featured as standard on the new Coupé, serve to significantly improve the level of safety offered by the car in road traffic: The risk of a collision from behind is reduced significantly if a motorist approaching from behind is warned clearly and in good time

of how hard the driver ahead is applying the brakes. And this is precisely the information he gets from the two-stage brake light system: When applying the brakes with “normal” force, the brake lights will come on on either side and

in the middle (in the third brake light positioned higher up). When braking hard or with ABS intervening, on the other hand, the area illuminated in the rear brake lights becomes larger, a motorist following from behind intuitively perceiving this signal as an emergency braking manoeuvre, responding accordingly by braking hard himself, and thus shortening his own stopping distance.

### **Child seat available as an option.**

Where required, even a child seat can be fitted on the passenger’s seat thanks to Isofix fastening points available as an option. In this case all the driver has to do is deactivate the passenger airbag by flipping a switch in the centre console, a warning light then coming on to inform the driver that the offside airbag is not operative.

### **Supreme sound quality: top-end HiFi systems.**

Market studies show that purchasers of a sports car demand the very best also when it comes to their car’s audio equipment. So apart from the “basic” system, the BMW Z4 M Coupé is available as an option with two top-end HiFi systems ensuring brilliant sound and supreme performance. An equaliser in the amplifier serves to optimise the linearity of the system.

The first unit consists of a ten-channel audio amplifier with four 40 W woofers at the front and rear, as well as six 25 W subwoofers and tweeters in the front upper section of the doors and behind the seat backrests.

The Professional HiFi system uses the most sophisticated Carver technology combining the volume of the right-hand and left-hand subwoofers to generate an extremely high level of sound pressure. To achieve this effect, a woofer is combined with an extra-powerful terminal stage providing not only the output voltage required of 30 V, but also an appropriate signal processing mode to protect the loudspeaker from self-destruction. Loudspeaker arrangement is the same as on the existing HiFi system, but comprises a digital ten-channel audio amplifier together with a sound processor and 100 W output on the subwoofers in the rear bulkhead.

**Two navigation systems with DVD memory as an option.**

The Business navigation system integrated in the dashboard uses data from a DVD covering the whole of Europe. Combined with a fast processor, the navigation system is able to calculate a new route without delay, for example when the driver leaves his current route.

Using this integrated system, the driver is also able to operate the on-board computer, radio, and telephone. The small monochromatic monitor for navigation purposes also presents short messages and news, and both the CD player as well as the CD changer are fully compatible with MP3 technology.

The Professional navigation system comes with a folding display – a 16 : 9 colour monitor of the latest generation – positioned right in the middle of the instrument panel. Thanks to a new surface film technology, the display is not only easy to read under all light conditions, but also prevents reflections on the windscreen due to a special anti-reflection film. Both navigation systems may be combined with a telephone fitted in the car as yet a further optional extra.

## Specifications. Z4 M Coupé.

<b>Body</b>		<b>Z4 M Coupé</b>
No. of doors/seats		2/2
Length/width/height (unladen)	mm	4,113/1,781/1,287
Wheelbase	mm	2,497
Track, front/rear	mm	1,486/1,516
Turning circle	m	10.5
Fuel tank capacity	ltr appr.	55
Cooling system incl. heating	ltr	10.7
Engine oil	ltr	5.5
Transmission/rear axle oil	ltr	1.5/1.1
Weight, unladen (EU <sup>1</sup> )	kg	1,495
Max load (DIN)	kg	310
Max. permissible weight (DIN)	kg	1,730
Permissible axle load front/rear	kg	855/935
Max. trailer load <sup>2</sup>		
Braked (12%/unbraked)	kg	-/-
Max. roof load/trailer nose weight	kg	-/-
Luggage comp. capacity (VDA)	ltr	245-300
Drag coefficient	c <sub>x</sub> x A	0.35 x 1.91
<b>Engine</b>		
Layout/cylinders/valves		Inline/6/4
Displacement	cm <sup>3</sup>	3,246
Bore/Stroke	mm	91.0/87.0
Compression ratio	:1	11.5
Fuel grade <sup>3</sup>	RON	95-98
Max. output	kW/min <sup>-1</sup>	252/7,900
Torque	Nm/min <sup>-1</sup>	365/4,900
<b>Electrics</b>		
Battery/Location	Ah/-	70/luggage comp
Generator	A/W	147/2,058
<b>Chassis</b>		
Front suspension	Single-joint spring strut axle with multiple track control arms; fixed position ball joint on guide joint, thrust plate, twin-sleeve gas pressure spring struts; anti-squat and anti-dive	
Rear suspension	Central arm axle with separate springs/dampers, twin-sleeve gas pressure	
Brakes, front	Compound disks	
Diameter	mm	345 x 28, vented
Brakes, rear	Compound disks	
Diameter	mm	345 x 28, vented
Driving Stability Systems	ABS, DSC, DTC	ABS, DSC, variable M differential lock
Steering	Electric power steering (EPS); Hydraulic power steering; rack & pinion	
Steering ratio	:1	15.4
Type of transmission	6 Speed	
Transmission ratio	I	:1 4.35
	II	:1 2.50
	III	:1 1.67
	IV	:1 1.23
	V	:1 1.00
	VI	:1 0.85
Reverse gear ratio	:1	3.93
Final drive ratio	:1	3.62
Tyres	225/45 and 255/40	
Wheels	8 J x18/9 J x 18 Alu	
<b>Performance</b>		
Power to weight ratio (DIN)	kg/kW	5.6
Output per litre	kW/ltr	77.6
Acceleration	0-62 mph	s 5.0
	0-1000 m	s 23.7
50-75 mph in 4 <sup>th</sup> gear	s	5.0
Top speed <sup>4</sup>	km/h	250
<b>Fuel consumption (EU cycle)</b>		
In town	ltr/100 km	18.2
Out of town	ltr/100 km	8.6
Overall	ltr/100 km	12.1
CO <sub>2</sub>	g/km	292
<b>Miscellaneous</b>		
Emission level	EU4	

Numbers in ( ) for automatic transmission.

<sup>1</sup>Weight of the car in road trim (DIN) plus 75 kg for driver and luggage.

<sup>2</sup>Deviations are possible under certain conditions.

<sup>3</sup>For Performance and fuel consumption figures: RON 98.

<sup>4</sup>Electronically limited.

## 9. Torque and Output Diagram.



## 10. Interior and Exterior Dimensions.



