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April 2010

# The Audi RS 5 Coupé –the beauty of power



Annex: Technical Data

**The equipment, data and prices specified in this document refer to the model range offered in Germany. Subject to change without notice; errors and omissions excepted.**

Summary

## Classic elegance and awesome power – the Audi RS 5 Coupé

**A classically elegant coupe with a breathtakingly powerful engine: Audi is introducing the RS 5 Coupé. The high-revving 4.2-liter V8 pumps out a hefty 331 kW (450 hp), yet uses fuel extremely efficiently. Like all of the high-performance models from Audi, the RS 5 Coupé delivers its power to the road via all four wheels. A new evolutionary stage of quattro permanent all-wheel drive is also debuting here.**

The Audi RS 5 Coupé uses a high-revving, normally aspirated V8 displacing 4,163 cc. This engine is closely related to the V10 that powers the R8 high-performance sports car. The 4.2 FSI delivers 331 kW (450 hp) at 8,250 rpm, with the peak torque of 430 Nm (*317.15 lb-ft*) available between 4,000 and 6,000 rpm. The sonorous V8 catapults the two-door model from 0 to 100 km/h (*0 to 62.14 mph*) in 4.6 seconds on its way to an electronically governed top speed of 250 km/h (*155.34 mph*). Audi can increase that to 280 km/h (*173.98 mph*) upon request.

The normally aspirated engine consumes just 10.8 liters of fuel per 100 kilometers (*21.78 US mpg*) on average - far less than its key competitors. This impressive figure is due to the combination of technologies from the Audi modular efficiency platform, which also includes a recuperation system.

With its high efficiency and its long top gear, the standard seven-speed S tronic also contributes to the good fuel economy. Drivers can let the lightning-fast dual-clutch transmission shift automatically or change gears themselves using the selector lever or with paddles on the steering wheel.

Like all RS models, the RS 5 Coupé also applies its power to the road with quattro permanent all-wheel drive. Audi is using a new development stage of the center differential called the crown-gear center differential.

Very compact and lightweight, it can widely vary the distribution of torque between the front and rear axles, with up to 70 percent flowing to the front or as much as 85 percent to the rear, if necessary. The default 40:60 ratio of the rear-biased configuration ensures sporty handling.

The crown-gear center differential works together with the likewise new torque vectoring system, which acts on all four wheels. If the load on the inside wheel is reduced too much while the car is being driven dynamically, that wheel is braked slightly before it can begin to slip.  Audi offers the sport differential as a complementary option that actively distributes the power between the rear wheels.

The chassis of the RS 5 Coupé is tautly tuned, lowering the body 20 millimeters (*0.79 in*) compared to the Audi A5. The high-performance coupe comes standard with 19-inch alloy wheels with 265/35-series tires; 20-inch wheels with 275/30-series tires are available as an option. Audi will begin offering a particularly dynamic damping technology towards the end of the year – the purely mechanical DRC Dynamic Ride Control.

The brake system uses large, internally ventilated discs. Their steel friction rings are perforated and connected to the aluminum brake caps via pins. The calipers are painted high-gloss black; the front calipers have eight pistons each. Audi installs carbon fiber-ceramic discs up front upon request. The ESP stabilization system includes a Sport mode and can be completely deactivated.

**Even more options: Audi drive select**

The Audi drive select driving dynamics system comes standard with the RS 5 Coupé. This system allows the driver to select between three modes – comfort, auto and dynamic – for the characteristics of the servotronic steering, the seven-speed S tronic, the accelerator and the exhaust system. And if the car is equipped with an Audi navigation system, there is also a fourth mode which can be configured by the driver. Along with the sport differential, dynamic steering is another optional component of Audi drive select.

Dynamic steering adjusts the steering ratio to a vehicle's speed and automatically countersteers gently when at the cornering limit. Furthermore, the sport suspension plus with DRC Dynamic Ride Control will also be adjustable via Audi drive select.

The RS 5 Coupé has an athletic road stance, and its classically elegant two-door lines dazzle with new and clear-cut accents. Its single-frame grille bears a glossy anthracite-gray rhombus-pattern grid. Xenon plus headlights with LED daytime running lights come standard. The air flows in through enlarged openings framed by distinctive contours.

The flared rear side elements with the sharp horizontal upper edges are reminiscent of a classic Audi – that all-wheel drive pioneer from 1980, the Audi quattro. The side sills sport chiseled caps; the trim strips and the side mirror housings have a matt aluminum-look finish.

The tail end is dominated by two oval exhaust pipes integrated within the bumper. A large diffuser protrudes prominently upward. The spoiler in the rear hatch extends automatically at 120 km/h (*74.56 mph*). The extensively clad underbody integrates air vents for the seven-speed S tronic and the front brakes. Thanks to its advanced aerodynamics, the RS 5 Coupé generates downforce at high speed to further enhance stability.

**Dynamic elegance: The interior**

The vehicle's dynamically elegant styling extends to the interior. The standard sport seats with integrated headrests are power adjustable and covered in a combination of leather and Alcantara. Alternatives include bucket seats with folding backrests or ventilated and luxuriously upholstered climate-controlled comfort seats.

The instruments feature black dials and white markings with special scaling. The driver information system with color display includes a lap timer and an oil temperature gauge. The interior is a study in black: the inlays are carbon and the fascia framing the instrument cluster in the instrument panel sports a piano finish.

The pedals, the footrest and the buttons of the optional MMI navigation systems shine in an aluminum-look finish. Aluminum inserts adorn the door sill trims, which are accentuated with RS 5 badges.

Audi also offers numerous exclusive optional features for the interior. A carbon design package is available for the engine compartment, as are a variety of styling packages for the body. A broad range of high-performance assistance and communication systems round out the optional extras program.

Deliveries of the Audi RS 5 Coupé are scheduled to begin in the middle of the year. Prices will start at 77,700 euros.

At a glance

## The new Audi RS 5 Coupé

**Engine**

- High-revving, normally aspirated V8 displacing 4,163 cc
- 331 kW (450 hp) at 8,250 rpm; peak torque 430 Nm (*317.15 lb ft*) from 4,000 to 6,000 rpm
- Zero to 100 km/h (*62.14 mph*) in 4.6 seconds; top speed increased to 280 km/h (*173.98 mph*) as an option.
- EU cycle fuel consumption just 10.8 liters per 100 km (*21.78 US mpg*)
- Recuperation system and additional efficiency technologies standard

**Drivetrain**

- Seven-speed S tronic dual-clutch transmission
- quattro with (self-locking) crown-gear center differential and torque vectoring
- Optional sport differential for variable power distribution between rear wheels

**Chassis**

- Audi drive select driving dynamics system, optional dynamic steering
- High-performance brakes, with carbon fiber-ceramic discs available as an option
- ESP stabilization program with Sport mode, can be deactivated
- Sport suspension plus, with Dynamic Ride Control variable damping available as an option (from Q4 2010)

**Body**

- Elegant coupe design with distinctive sporty accents
- Xenon plus headlights with LED daytime running lights and LED taillights
- Flared wheel wells front and rear, side extensions

**Interior and controls**

- Exclusive interior with carbon inlays
- Power-adjustable sport seats; bucket seats with folding backrests and climate-controlled comfort seats available as options
- Specially designed instruments with lap timer and oil temperature gauge
- Optional hard drive navigation system with Bang & Olufsen sound system
- Advanced driver assistance systems available

Full version

# Power in its most beautiful form – The Audi RS 5 Coupé

**Tremendous power packaged in a classically elegant coupe body: Audi is introducing the Audi RS 5 Coupé. The high-revving 4.2 liter V8 delivers 331 kW (450 hp), yet is amazingly fuel efficient. The seven-speed S tronic and an innovative center differential in the quattro drivetrain transmit power to all four wheels.**

**Developed by quattro GmbH, the Audi RS models comprise the dynamic spearhead of Audi's model range. The RS 5 Coupé is the latest torchbearer in a tradition dating back over 15 years to the RS 2 Avant: exceptional dynamics in the midsize category.**

## Body and exterior design

The Audi RS 5 Coupé has an athletic and muscular road stance. Its flowing silhouette, striking lines, accentuated surfaces, expressive front end and distinctive tail end make it a sculpture in motion. The broad, low body with the long front end, short front overhang and elongated transition from the C-pillar to the tail end define the proportions of classic elegance.

With the RS 5 Coupé, a number of special design details set distinctive accents. The single-frame grille bears a shiny anthracite-gray rhombus-pattern grid with an RS 5 badge. The grille's frame sports a matt aluminum-look finish. Xenon plus headlights are standard; their sickle-shaped daytime running light strips of seven LEDs each in conjunction with the "wings," the wave-like shapes in the headlight housing, are a characteristic feature of the Audi design.

The bumper has been redesigned and now features a splitter edge at the bottom like on a race car. The air flows through large openings adorned with crossbars and black rhombus-pattern grids, and framed by three-dimensional, protruding edges. Two supplemental coolers support the main radiator.

The high-performance coupe requires cooling air and water for the engine, for the power steering fluid and for the hydraulics of the seven-speed S tronic transmission. Its oil cooler is integrated into the radiator loop.

The front and rear fenders are distinctly flared; the side panels have been completely redesigned for the RS 5 Coupé. The sharp edges over the wheel wells are reminiscent of a classic Audi – that all-wheel drive pioneer from 1980, the Audi quattro, had similar “blisters.” The sills sport chiseled caps. The trim strips and the side mirror housings, which are fitted with LED turn signals, have a matt aluminum-look finish.

**Exclusive appearance: Eight paint colors, four different effects**

Audi offers a choice of eight paint colors – one solid finish, two metallic colors, four pearl-effect finishes and one crystal-effect color: Ibis White, Suzuka Gray, Monza Silver, Misano Red, Sepang Blue, Daytona Gray, Phantom Black and Panther Black. The last color is a custom blend for Audi high-performance vehicles – special pigments generate unusual effects as a function of how the light strikes the paint.

Two optional styling packages are also available. One of these includes the single-frame grille, the blade and the trim strips on the flanks in black; the other uses a matt aluminum-look finish to set accents at the front and rear of the car. A carbon design package for the engine compartment is also available as an option.

The tail end with the RS 5 logo is dominated by the two large oval exhaust pipes, which terminate in a broad surface covered with a rhombus-shaped grid. This surface includes a large diffuser that protrudes prominently upward. The spoiler in the rear hatch extends at 120 km/h (*74.56 mph*) and retracts again below 80 km/h (*49.71 mph*). The driver can also activate the spoiler via a switch as desired.

The underbody of the RS 5 Coupé is largely lined with plastic cladding. It integrates NACA air vents and airfoils for the brakes, the seven-speed S tronic and center differential. At highway speeds, the aerodynamic characteristics of the high-performance coupe generate downforce to further enhance stability. The $c_D$ value is 0.33; the front surface area measures 2.18 m² *(23.47 sq ft)*.

The Audi RS 5 Coupé is 4,649 millimeters long, 1,860 millimeters wide and 1,366 millimeters high (*15.25 x 6.1 x 4.48 ft*), making it 24 millimeters (*0.94 in*) longer and 6 millimeters (*0.24 in*) wider than the A5. It is 6 millimeters (*0.24 in*) lower in height. Its body boasts high rigidity at low weight; the front fenders are made of aluminum. A strut brace further reinforces the front end.

## Engine

Brawny power, spontaneous response and high revs – and all underscored by voluminous, sonorous music. The V8 in the RS 5 Coupé conveys the skin-tingling feeling of power and emotion. Displacing 4,163 cc, the 4.2 FSI delivers impressive torque and just like a race engine is right at home even at high revs. It puts out 331 kW (450 hp) at 8,250 rpm, and the peak torque of 430 Nm (*317.15 lb-ft*) is available between 4,000 and 6,000 rpm. The rev limiter kicks in at 8,500 rpm.

The specific output of the normally aspirated eight-cylinder is 108.1 hp per liter of displacement. Each hp only has to move 3.83 kilograms (*8.44 lb*) – the RS 5 Coupé weighs just 1,725 kilograms (*3,803 lb*). The 4.2 FSI catapults the two-door model from a standing start to 100 km/h (*62.14 mph*) in 4.6 seconds; 200 km/h (*124.27 mph*) is reached after another 10.9 seconds. Top speed is an electronically governed 250 km/h (*155.34 mph*); Audi will raise this to 280 km/h (*173.98 mph*) at the customer's request.

Efficiency and dynamics are inextricably linked at Audi. The ultra-powerful eight-cylinder engine averages 10.8 liters of fuel per 100 kilometers (*21.78 US mpg*) – far less than its main competitors. This figure is due in part to the technologies from Audi's modular efficiency platform.

The cylinder barrels and the chain drive have been optimized to minimize friction, the oil pump operates on demand, and a recuperation system recovers energy during coasting and braking. The electricity is stored temporarily in the battery; it is used during the next acceleration phase to reduce the load on the generator and thus on the engine.

The high-revving, normally aspirated V8, whose cylinder head covers are painted red, is built by hand at the plant in Györ, Hungary, and has much in common with the V10 from the R8 high-performance sports car. Its classic 90 degree cylinder angle results in a low center of gravity. The two opposing banks are offset by 18.5 millimeters (*0.73 in*). The bore measures 84.5 millimeters (*3.33 in*) and the stroke 92.8 millimeters (*3.65 in*).

The V8 weighs just 216 kilograms (*476.2 lb*). Its crankcase is manufactured using the low-pressure die casting method, which ensures particular homogeneity. The aluminum-silicon alloy combines low weight with high strength. Its high silicon content makes the cylinder barrels extremely durable. The forged crankshaft, the forged steel connecting rods and the pistons forged from a high-strength aluminum alloy are all also extremely lightweight, yet strong.

The crankcase is a bedplate construction. The lower bearing bridges for the crankshaft are integrated into a common frame for maximum rigidity and optimal vibration behavior. The cast iron bearing bridges reduce the thermal expansion of the crankcase and thus keep the play at the main bearings of the crankshaft within tight limits.

**FSI direct injection: The winning technology from Le Mans**

Like nearly every gasoline engine from Audi, the 4.2 FSI has its fuel injected via a direct injection system. Audi has taken the FSI technology from the race track – the harshest testing laboratory in the world – to the street. This technology has powered the R8 race car to four wins in five starts at the 24 Hours of Le Mans. The common rail unit injects the fuel into the combustion chambers at up to 120 bar of pressure through nozzles located in the side of the cylinder head.

The fuel mixture is swirled intensely in the combustion chambers and thus cools the walls. This allows a high compression ratio of 12.3:1, which increases output and efficiency.

Painstaking refinements to the dual intake and exhaust system with the two throttles allow the long-stroke engine to breathe freely. Vacuum-actuated tumble flaps controlled by the engine management system are integrated into the straight intake ports. The cause the air to move with a roller-like rotation (to “tumble”), which increases the efficiency of the combustion process.

The 32 valves, which are actuated via roller cam followers, have large diameters – 33.9 millimeters (*1.33 in*) on the intake side and 28.0 millimeters (*1.10 in*) in the case of the sodium-coiled exhaust values. The valves are actuated by four camshafts, which can be moved hydraulically through 42 degrees of crankshaft rotation. They are driven by chains running on the back side of the engine.

The principle of lightweight construction was also a high priority with respect to the V8. The intake manifold is made of plastic; a pressure sensor is used to measure the loads very precisely. In contrast to other high-performance engines, the 4.2 FSI needs just a single, newly developed controller. The pipes of the manifold and of the exhaust system, which have been painstakingly optimized for low backpressure, are hydroformed from stainless steel and are very lightweight.

An exhaust flap is installed in each of the two large tailpipes of the dual exhaust system. At higher loads and engine speeds – or at the push of a button in the standard Audi drive select control system – the exhaust flap is opened for an even richer sound. Upon request, Audi will install a particularly distinctive sounding sport exhaust system with black tailpipes that also includes this switching function.

## Drivetrain

The seven-speed S tronic is celebrating a premiere of sorts in the RS 5 Coupé: This marks the first time that it will be working together with a high-revving engine – an easy assignment for the S tronic, which was designed for 9,000 rpm. Audi has made targeted modifications to certain aspects of the dual-clutch transmission, such as the oil management system and the clutches. The gear ratios have also been adjusted. Seventh gear is relatively tall to reduce consumption.

The seven-speed S tronic comprises two subunits and integrates two multi-plate clutches that control the various gears. The large K1 clutch located on the outside directs the torque via a solid shaft to the gear wheels for the odd-numbered gears 1, 3, 5 and 7. A hollow shaft rotates around the solid shaft. It is connected to the smaller K2 clutch, which is integrated into the inside of its larger sibling, and which controls the gear wheels for the even-numbered gears 2, 4 and 6, as well as reverse gear.

Both transmission structures are continuously active, but only one is connected to the engine at any one time. For example, when the driver accelerates in third gear, the fourth gear is already engaged in the second transmission structure. The shifting process takes place as the clutch changes – K1 opens and K2 closes. Shifting gears takes only a few hundredths of a second and is completed with practically no interruption of traction. It is so dynamic, fluid and smooth that the driver hardly notices it.

The seven-speed S tronic can be used in a number of ways. The fully automatic mode, in which the control unit determines the gearshifts, offers the D (Drive) and S (Sport) programs. The transmission management system follows the settings of the Audi drive select vehicle dynamics system. If the driver changes gears using the gear selector lever or the paddles behind the steering wheel, the transmission goes into a particularly sporty mode in which it allows the engine to rev up to the limit without shifting up. If the dynamic Audi drive select mode is active, the transmission double-clutches when downshifting.

Another specialty of the seven-speed S tronic in the RS 5 Coupé is the launch control function, which enables rocket-like starts. The driver needs only to press the accelerator to the floor. The system manages the engagement of the clutch so that all of the power of the 4.2 FSI is delivered to the road with perfectly controlled tire slip.

**New quattro technology: The crown gear center differential**

Audi is presenting a new, evolutionary stage of its permanent all-wheel drive system for longitudinal engines in the high-performance RS 5 Coupé – the quattro drive with self-locking crown gear differential and torque vectoring. 30 years after the debut of the first quattro at the Geneva Motor Show in 1980, Audi has once again expanded its lead over the competition.

Inside the new center differential are two rotating crown gears that owe their name to the crown-like design of their teeth. The front crown gear drives the output shaft to the front differential, the rear crown gear the propshaft to the rear axle. The connection here is provided by an ambitious construction. The new drivetrain design is roughly 3 kilograms (*6.61 lb*) lighter than the previous one.

The crown gears are driven by four pivot-mounted compensating gears arranged at angles of 90 degrees to each other. They are driven by the housing of the differential, i.e., by the gearbox output shaft. Under normal driving conditions, the two crown gears turn at the same speed as the housing. Because of their special geometry, they have intentionally unequal leverage. Normally 60 percent of the engine torque goes to the rear differential and 40 percent to the front differential.

If the torques change because one axle loses grip, different speeds and axial forces occur inside the differential and the integrated plate packages are pressed together. The resulting self-locking effect now diverts the majority of the torque to the axle with the better traction; up to 85 percent can flow to the back. In the opposite scenario – if the rear axle has less traction – the same happens in reverse; now up to 70 percent of the torque is diverted to the front axle.

**New strengths: Even more grip, less weight**

With this extremely broad torque distribution range, the crown-gear center differential surpasses its predecessors – grip becomes even better. Forces are redistributed without any time lag and absolutely consistently. The mechanical operating principle guarantees maximum efficiency and immediate response. Other strong points of the crown-gear differential are its compactness and low weight – at 4.8 kilograms *(10.58 lb)* it is roughly two kilograms (*4.41 lb*) lighter than the previous unit.

Audi pairs the crown-gear differential with an intelligent brake management software solution in the RS 5 Coupé. Torque vectoring is an evolutionary form of the ESP with electronic axle-differential lock that is familiar from front-wheel-drive models; it acts on all four wheels. The new system makes sporty driving even more precise and dynamic.

When cornering at speed, the software uses the driver's steering input and desired level of acceleration to calculate the optimal distribution of propulsive power between all four wheels. If it detects that the wheels on the inside of the curve, which are under a reduced load, are about to slip, it marginally brakes these wheels – just slight application of the pads on the disks at minimal pressure is all that it takes.

Torque vectoring works smoothly and continuously. The RS 5 Coupé remains neutral for an extremely long time at the handling limits; the slight understeer when turning into corners and when accelerating is essentially compensated. The ESP stabilization program intervenes later and more gently – if it is even necessary at all.

**Like on rails: quattro with sport differential**

As a complement to the new quattro drivetrain in the RS 5, Audi offers another dynamic technology as an option: the sport differential, which actively distributes torque between the rear wheels. Vehicles with conventional axle drives tend to understeer in fast corners.

With the sport differential, it is like riding on rails. When turning into or accelerating in a curve, the majority of the torque flows to the outside wheel and pushes the RS 5 Coupé into the curve, nipping the tendency to oversteer or understeer in the bud.

The sport differential is a state-of-the-art rear differential. A superposition gear comprising two sun gears and an internal gear was mounted on the left and the right of a conventional rear differential. It turns 10 percent faster than the drive shaft.

A multi-plate clutch in an oil bath and operated by an electrohydraulic actuator provides the power connection between the shaft and the superposition gear. When the clutch closes, it steplessly imposes the higher speed of the superposition stage on the outside wheel. The additional torque required in order to rotate faster is drawn away from the inside wheel via the differential. In this way nearly all of the torque can be directed to one wheel. The maximum difference between the wheels is 1,800 Nm *(1,328 lb-ft)*.

The sport differential is just as effective while coasting as it is under load. It is electronically controlled and reacts within a few hundredths of a second. Audi developed custom software for use in the RS 5 Coupé. The controller constantly recalculates the ideal distribution of the forces for each driving situation as a function of the steering angle, yaw angle, lateral acceleration, speed and other information.

## Chassis

The high-performance Audi RS 5 Coupé dazzles with extreme driving dynamics. It reacts without hesitation, almost reflexively. Its handling is uncompromisingly precise; its stability guarantees maximum driving safety. The steering connects the driver with the road to provide sensitive, finely differentiated feedback.

The wide tracked chassis of the RS 5 Coupé is rigorously tuned for performance. All of the key suspension components are made of aluminum, thus reducing the unsprung masses.

The springs and dampers of the track-controlled trapezoidal link rear suspension are separated to improve response behavior. The links are mounted on a steel subframe on elastic bearings. The five-link front suspension processes the longitudinal and lateral forces separately. The rigid aluminum frame to which it is linked makes the front end extremely rigid.

The low-mounted steering gear sends the steering forces via the track rods to the wheels over the shortest distance. Its ratio of 16.3:1 is sporty and direct. The controlled-output vane-type pump that supplies the system makes its contribution to fuel efficiency by delivering only as much oil as is actually needed. It is configured as a speed-dependent power steering unit, and its characteristic has been adapted to the character of the RS 5 Coupé.

**Rigorously dynamic: The setup of the RS 5 Coupé**

The entire setup of the high-performance coupe is rigorously dynamic. Stiffer bearings provide for sporty elastokinematics and the stabilizer bars are thicker. The shock absorbers are stiffer and the body has been lowered 20 millimeters (*0.79 in*) compared with the volume A5.

Towards the end of the year, Audi will offer a second technology in addition to the classic chassis – the sport suspension plus with DRC Dynamic Ride Control, which is already in use in similar form in the RS 6 family. It reduces all pitch and yaw movements purely mechanically and thus without any lag; the sport suspension plus is compact and lightweight.

The principle behind the DRC is as simple as it is effective. The diagonally opposed pairs of shock absorbers are linked by hydraulic lines and a central valve. When cornering at speed, the valves regulate the oil flow in the shock absorber of the deflected outside front wheel almost immediately. They increase the support provided and reduce lateral tilt, thus improving the dynamics. The system is combined with a variable damper control, which can be switched between three stages using the standard Audi drive select vehicle dynamics system.

The RS 5 Coupé features a particularly powerful version of Audi drive select – it incorporates the optional sport suspension plus and the likewise optional sport differential, the standard servotronic power steering, the seven-speed S tronic, the engine's throttle valves and the sound flap in the exhaust system. The driver can vary the function of these systems between the three modes comfort, auto and dynamic. If the RS 5 Coupé has one of the two MMI navigation systems on board, there is a fourth mode that can be customized according to the driver's wishes.

Another optional component of Audi drive select is dynamic steering, which operates with a high-tech superposition gear in the steering column. It steplessly adjusts the steering ratio as a function of speed, from direct when maneuvering to indirect on the highway. At the cornering limit, the dynamic steering countersteers with nearly imperceptible pulses, making the handling even more dynamic, fluid and safe. It prevents the car from pulling when braking on a surface that offers more grip on one side. The characteristics of the dynamic steering unit were adapted specifically for the RS 5 Coupé.

**Handling precision – without compromise**

The Audi RS 5 Coupé rolls on large cast aluminum, five-arm structure design wheels. The 9J x 19 wheels are shod with 265/35-series tires. Audi offers optional 20-inch wheels with 275/30-series tires in two variants, one in a machine-polished, titanium-look finish. Winter wheels featuring the same dimensions are available; the 19-inch wheels are suitable for snow chains. All tires have been optimized for rolling resistance – without compromising their dynamic characteristics.

Beefy discs fit behind the large wheels. Discs measuring 365 millimeters (*14.37 in*) in diameter and 34 millimeters (*1.34 in*) thick are mounted on the front axle; the rear axle sports discs measuring 324 x 22 millimeters (*12.76 x 0.87 in*). The internally ventilated steel friction rings are perforated and connected to the aluminum brake caps via massive stainless steel pins. This direct structure reduces tensions, quickly dissipates the heat and prevents the transmission of temperature peaks.

The monoblock calipers painted high-gloss black and bearing RS logos are also made of aluminum. The front calipers each have eight pistons; single-piston floating calipers are mounted on the rear axle.

Audi installs anthracite gray, perforated carbon fiber-ceramic discs up front upon request. They measure 380 millimeters (*14.96 in*) in diameter and are gripped by anthracite gray, six-piston fixed calipers. The base material is silicon carbide, a material with a diamond-like crystal structure in which high-strength carbon fibers are embedded.

The complex geometry of the cooling channels quickly dissipates the heat. Titanium bolts connect the friction rings to the forged aluminum caps. The ceramic discs are practically fade-free, extremely robust, powerful and durable. Furthermore, with a total weight of just four kilograms (8.*82 lb*), they are lighter than steel discs despite their larger size.

The brake system in the Audi RS 5 Coupé not only delivers tremendous stopping power, it also provides finely differentiated feedback thanks to the specially compiled tandem power brake system. A specially configured stabilization system monitors the cornering limit. With the touch of a button, the driver can activate a sport mode that deactivates the engine interventions and thus permits spectacular but safe drifts when accelerating.

The ESP together with the anti-slip control can also be completely deactivated for particularly dynamic driving situations such as a driver training course or a trip to the race track. The optional hill-start assist, a subfunction of the system, makes it easier to start off on grades by maintaining the pressure in the system after the brake pedal is released.

## Interior

The vehicle's exclusive and dynamically elegant styling extends to the interior. Sport seats with prominent side bolsters, integrated headrests and embossed RS 5 logos in the backrests are standard. The sport seats are power-adjustable and include a four-way lumbar support and an extendable thigh rest.

The sport seats have Alcantara on the center strips and leather on the side elements. Designs in black or silver Silk Nappa leather with gray piping are available as an alternative. Audi offers even more deeply contoured, manually adjustable bucket seats for uncompromising sports enthusiasts. These seats have folding backrests and are covered in black Fine Nappa leather. Comfort-oriented customers can choose the luxuriously upholstered climate-controlled comfort seats. These ventilated seats are covered in perforated black Milano leather.

The three-spoke multifunction steering wheel in the RS 5 Coupé has a thick rim and is covered with perforated leather with contrasting gray stitching. The instruments have black faces and white markings with unique scaling – the speedometer goes to 320 km/h (*198.84 mph*). When the ignition is switched on, the red dials turn all the way to the limit and then fall back to zero. The driver information system with its color display includes a lap timer and an oil temperature gauge. It displays an RS welcome screen when the car is started.

**Exclusive colors and materials: Black, silver and carbon**

The interior of the four-seater is black, the headliner is either black or silver and the inlays are carbon featuring particularly fine and precise fiber structures. A piano-finish fascia in the instrument panel frames the instrument cluster. The pedals, the footrest, the air vents, the shift paddles on the steering wheel, the buttons of the optional MMI navigation systems and other controls shine in an aluminum-look finish.

Typical of all RS vehicles, the door openers are two narrow bars. Aluminum inlays adorn the door sill trims. RS 5 logos can be found there, on the steering wheel, on the tachometer and on the gear selector lever. The selector lever for the seven-speed S tronic has a knob of perforated leather and a cuff with gray seams.

A number of other elegant features are available from Audi as options. Inlays in matt brushed aluminum, piano finish black or dark stainless steel mesh are available at no charge. The metallic structure comprising countless steel fibers feels slightly rough – an extraordinary haptic experience. In addition, the Audi exclusive program offers many specific options, including floor mats with RS 5 logos, control elements covered in black suede or colored seat covers in fine Valcona leather.

## Equipment and trim

The Audi RS 5 Coupé comes with an opulent array of standard features. In addition to the special modifications to the exterior, interior, drivetrain and chassis, these include the parking system plus with optical display and an automatic air conditioning system.

The concert CD radio features a card reader, an AUX-IN port, a 6.5-inch color monitor and eight speakers. The back seat backrests can be folded down. A pass-through facility with removable ski sack provides another connection to the 455 liter (*16.07 cu ft*) luggage compartment, whose hatch swings up automatically when unlocked.

There is also an ample package of restraint systems. It begins with three-point belts with tensioners and force limiters up front, the integral headrest system and ISOFIX mounts for child seats in the rear. Two front, side and head airbags offer good protection in the event of a crash. Side airbags are not available with the optional bucket seats.

Attractive options bring executive-class luxury to the RS 5 Coupé. The adaptive light technology combines xenon plus headlights with dynamic cornering lights; the high-beam assistant changes automatically between low beam and high beam. The convenience key enables keyless access without having to unlock the car and allows pushbutton starting. The panoramic sunroof, the three-zone automatic air conditioning, tinted rear windows and the power rear window shade ensure that the climate on board is always comfortable.

**Versatile – the assistance and multimedia systems**

Innovative assistance systems make driving in the RS 5 Coupé even more relaxing. Take for example the adaptive cruise control and the Audi side assist. They keep your own vehicle the desired distance from the vehicle to the front and help the driver when changing lanes. The Audi parking system plus with reversing camera displays the area behind the car on the onboard monitor using an inconspicuously mounted camera.

Audi also has a wide range of multimedia components at its disposal. The symphony radio has a six-disc CD changer. The MMI navigation system reads its data from a DVD. It can be expanded to include a digital radio receiver, a CD changer, a Bluetooth car phone and an interface for full iPod integration – the Audi music interface.

The top-of-the-line MMI navigation plus has exclusive technologies on board. The seven-inch, high-resolution color monitor shows the navigation maps as either conventional 2D graphics or in 3D. The system understands whole words for the entering of destinations. Map data are stored on a 40 GB hard drive; points of interest and city views are displayed in three dimensions. Music files and the user's contacts are also stored on the hard drive. The radio module has a three-way tuner. There is a player for audio and video DVDs that can be controlled easily via a special joystick function for the MMI control unit.

Optional features upgrade the system to a high-end media center. Audi offers solutions such as an analog/digital TV tuner and a luxury Bang & Olufsen sound system with 10 channels and 14 speakers. It boasts 505 watts of power and a highly resolved, dynamic hi-fi sound.

Deliveries of the Audi RS 5 Coupé are scheduled to begin in the middle of the year. Prices will start at 77,700 euros.

## The RS models

With their high-performance engines and quattro permanent all-wheel drive, the Audi RS models have formed the dynamic spearhead of the Audi model program since 1994. quattro GmbH has been responsible for these vehicles since 2000.

The first model – the RS 2 based on the Audi 80 Avant – was developed in collaboration with Porsche in 1994. Its 2.2-liter, five-cylinder engine used four-valve technology and turbocharging to produce a powerful 232 kW (315 hp). Both performance and the brakes were in the same league as those of powerful sports cars. The RS 2 was only on the market for two years, but it established a new vehicle class – the high-performance sports station wagon.

The first RS 4 Avant in the year 2000 carried on with this concept. It was powered by a 2.7-liter V6 engine with twin turbochargers, generating 279 kW (380 hp). The second generation RS 4 introduced in 2005, on the other hand, used a high-revving, normally aspirated V8. The engine featured direct fuel injection and generated 309 kW (420 hp), which it delivered to the wheels via a newly developed center differential biased toward the rear axle. The new RS 4 was the first to be offered in three body styles: Sedan, Avant and Cabriolet.

### 331 kW (450 hp): The V8 turbo in the RS 6

The RS 6 appeared in the A6 family in 2002 and both Sedan and Avant models were available. It featured the versatile 4.2-liter V8; with twin turbos supplying the boost, the engine generated 331 kW (450 hp). DRC Dynamic Ride Control effectively offset pitch and yaw. The 2005 RS 4 also benefited from this technology. The limited edition RS 6 plus with 353 kW (480 hp) followed in 2004.

The second generation of the RS 6 appeared in 2008. Under the hood it had a 5.0-liter FSI V10 with twin turbochargers for 426 kW (580 hp), the most powerful engine ever in an Audi passenger car. An RS 6 plus returned to the lineup in spring 2010, but once again as a limited production vehicle. Power has remained the same, but the top speed has been increased to 303 km/h *(188.28 mph)*

Since 2009, dynamic RS models have also represented the top-of-the-line in the compact class as well. The TT RS and the TT RS Roadster both take up the Audi tradition of five-cylinder engines, with their 2.5-liter power plant with direct injection producing 250 kW (340 hp). Coupled with the lightweight Audi Space Frame (ASF) body made primarily of aluminum, this unit not only provides for explosive performance but also high fuel efficiency.