

Audi A6 Sedan - Aerodynamics

Aerodynamics: the best drag coefficient of an Audi with a combustion engine

The sporty and low design of the new Audi A6 Sedan contributes to its outstanding aerodynamics, ensuring a drag coefficient (Cd value) of 0.23. This is the best value of any series-produced model with a combustion engine in Audi history. Air curtains are used to ensure that the airflow around the front wheels and sides of the vehicle is as smooth as possible. These have been seamlessly integrated into the new design of the A6 Sedan*. Two separately controllable cool-air intakes behind the Singleframe radiator grille are part of the aerodynamics concept. They ensure optimized airflow around the engine bay. To harness the full potential of this technology, Audi has also optimized the seal between the bumper and the cooling unit, reducing airflow losses in this area by up to 70 percent. To achieve this, the air control elements were made significantly more rigid. The unified interface for the air intake and for engine cooling also contributes to improved airflow around the body. Furthermore, a front spoiler in the front bumper reduces front-axle lift and ensures better airflow around the underbody. In addition, numerous panels on the vehicle's underside ensure controlled and harmonious airflow. These include wheel spoilers and specific covers on the transmission tunnel and rear axle.

The shape of the rear slopes slightly upward at the end, a crucial factor for the outstanding aerodynamics of the A6 Sedan. The sharp angle of the spoiler lip, together with the hollow groove in front of it, creates an optimal stall. In combination with the large, wide diffuser, the wake area – that is, the airflow turbulence at and behind the rear – is minimized and kept within a perfect range for aerodynamics. The result is an ideal balance between lift at the rear axle and drag, which enhances driving dynamics.

Rounding off the sophisticated aerodynamic concept are the aerodynamically optimized 18- and 19-inch wheels made of diamond-cut aluminum. The visible design of the rim is glossy, while the closed sections, designed to optimize aerodynamics, are black and blend inconspicuously into the shadows.

The aerodynamics and overall vehicle acoustics of the new A6 Sedan are also top-notch. For example, sound insulation in the vehicle has been improved by up to 30 percent compared to the previous model. More tightly sealed windows and optimized door seals ensure more pleasant acoustics in the interior, thereby enhancing onboard well-being. The optional range of acoustic glazing now includes the rear door windows as well as the front side windows. Newly developed engine and transmission mount bushings make for a smoother and quieter ride. The shape of the transmission gear teeth has also been optimized, which benefits the acoustics of the S tronic as well.

Moreover, all tires 19 inches or larger are equipped with noise absorbers. These are foam rings on the inside of the tire that reduce air vibrations there and thus have a positive effect on the noise level in the vehicle.

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