

Audi A6 Avant - Aerodynamics

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

The sporty design of the new Audi A6 Avant contributes to its outstanding aerodynamics, ensuring a drag coefficient (Cd value) of 0.25. This is the best value for an Avant with a combustion engine in the history of Audi. 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 Avant. Two separately controllable cool-air intakes behind the Singleframe radiator grille are part of the aerodynamics concept. These 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. At the rear, aerodynamic panels ensure a defined flow stall, assisted by the roof edge spoiler. The wide and aerodynamically optimized diffuser also makes an important contribution to the excellent drag coefficient. This enables the ideal balance between lift at the rear axle and air resistance.

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 Avant are also top-notch.

For example, sound insulation in the vehicle has been improved by up to 30 percent compared to the previous model – with the weight of the materials remaining almost the same. More tightly sealed windows and optimized door seals ensure more pleasant acoustics in the interior, thereby enhancing onboard well-being. Optional acoustic glazing is now available for 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. Furthermore, all tires 19 inches or larger have 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.

Source: www.audi-technology-portal.com

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