Audi e-tron S Sportback – Aerodynamics

Optimized airflow through the front wheels: air curtains and airflow through wheel arch trims

The controlled airflow at the front wheels is fundamental to the aerodynamics concept. The side air inlets in the front – the air curtains – route the air over a channel in the wheel houses to optimize the airflow to the wheels and the vehicle flank. The airflow through the wheel arch trims serves the same purpose: Narrow horizontal bars in the recesses formed by the widened trims in the front channel the airstream to surround and encapsulate disruptive swirl in the wheel houses. The upshot is “cleaner” airflow along the vehicle flank with reduced flow losses. The design of the 20-inch wheels as well as the tread and the pattern on the sidewalls of the tires have also been optimized accordingly.

The airflow through the wheel arch trims helps Audi resolve the conflict of objectives between outstanding aerodynamics and sporty looks. For the first time, the brand with the Four Rings is bringing this innovative, patented solution to high-volume automobile production. The future Audi e-tron S Sportback will achieve a drag coefficient figure of 0.26 – the Audi e-tron S 0.28.

Source: www.audi-technology-portal.com
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