

“Conturan” offers a clear view of the control panel – without annoying reflections.



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Driven to Perfection

With its new "Phaeton" model, the German car manufacturer VW has introduced its first luxury-class sedan to the market. Anti-reflective "Conturan" glass from Schott Desag allowed greater freedom in the design.

The new luxury-class sedan, VW Phaeton, relies on quality – as demonstrated with special glass from Schott.



▶ Alone the outward appearance shows that this Volkswagen model aims to set itself clearly apart from average cars. The top-range "Phaeton" is not produced in a conventional plant, but rather in a "Transparent Factory". And instead of locating this facility near the company's headquarters in Wolfsburg, VW chose a site in Dresden, the home of the Semper Opera House and the famous Frauenkirche Cathedral.

The Phaeton is a combination of culture and technology, of style and class. And with this innovative and elegant model, Volkswagen is positioning itself against the well-established competition in the luxury-class market. It thus comes as no surprise that three things count in the production of this top-range vehicle: quality, quality and still more quality.

The demands Volkswagen's researchers placed on the various components of the vehicle were enormous. And in one particular case, it was Schott Desag AG that offered the automobile manufacturer with the best solution: "Conturan" glass covers for Phaeton's instrument panel.

"This glass has two major advantages," says "Conturan" Sales Manager Petra Fischer. "It is more permeable to light and significantly reduces reflection." Reflections on the glass covering of control instruments are not only annoying, but also a safety risk. According to a study conducted by the University of Bremen, drivers have to process on average eight sensations per second. Very often only a few fractions of a second remain for a glance at the speedometer, and the required information must be available immediately. By reducing reflection to the minimal level of just 0.5 percent, "Conturan" sets new standards. For the sake of comparison, regular reflective float glass reflects about eight percent of light. "Conturan" thus offers an improvement of more than 93 percent.

"Besides offering higher safety, this gives car manufacturers greater freedom in design," explains Fischer. Up to now, instruments in automobiles had to be mounted deeper into the dashboard or fitted with a more or less attractive covering to protect them from the light. In terms of aesthetics, both variations were considered at best makeshift

solutions. With "Conturan", the instruments can now be mounted where designers want them to be: on the outer edge of the dashboard. "The attractiveness of the car is clearly enhanced," says Fischer. Schott's "Conturan" allows drivers to concentrate on the essentials.

But what makes "Conturan" so superior? While glass is usually etched to reduce reflection (a process that has a negative effect on the transparency), in the case of "Conturan" the glass is given three metal oxide coatings on both sides. The coatings are applied using a special dipping process. Each layer has a maximum thickness of 100 millionths of a millimeter – a normal human hair is 900 times thicker. And yet this thin coating is extremely durable. "'Conturan' is highly resistant to chemicals and abrasion and has a strong adhesive power," explains Fischer.

Several tests have shown that these anti-reflective coatings are extremely resistant to beverages and cleaning sprays. When sprayed with copper chloride acetic acid, it is evident that the surface is also highly resistant to corrosion. All in all, "Conturan" offers advantages that are, well, as clear as glass. ◀

The Phaeton is produced at Volkswagen's "Transparent Factory" in Dresden.

