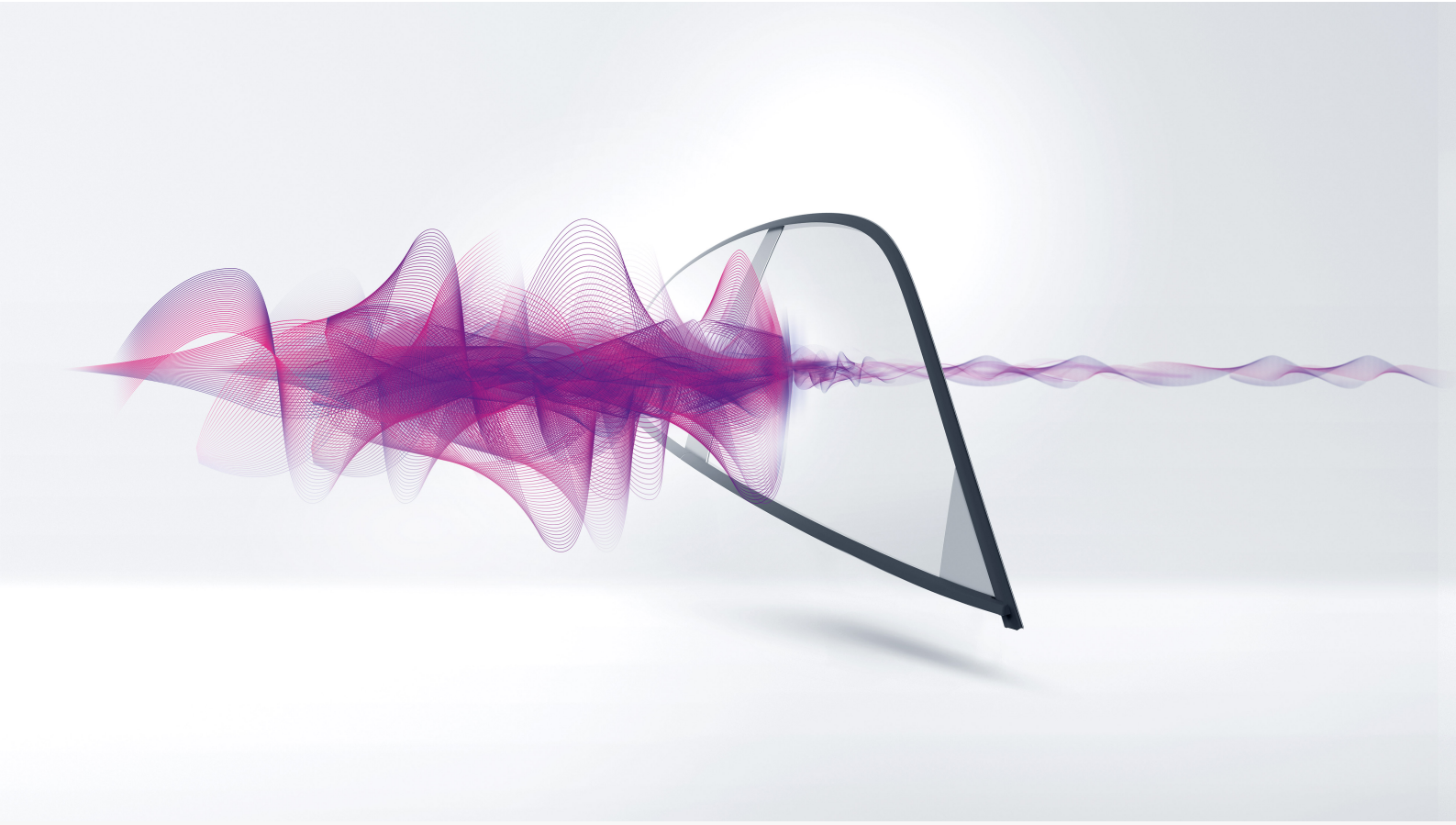


Peace and quiet on the road: thermally and noise-insulated glass by Porsche

This article reflects the status at the time of its publication. The content may since have become outdated.

04/01/2022 Virtuoso engine sound, casual conversation and exceptional music – these sound experiences can be further enhanced with optional thermally and noise-insulated glass.

For drivers, outside noise is most noticeable when entering a highway tunnel, where the concrete walls reflect sound into the car's interior, where it rises to a roaring crescendo. Those in the car have to speak more loudly, and occasionally the sound system turns up the volume of the music and voice prompts. "These differences reveal the impact that outside noise can have on driving comfort," says Jürgen Ochs, Head of Sound Quality, Car Bodies, at Porsche. "The type of glass in the vehicle plays a key role in acoustic comfort. And its effect can be precisely measured – whether on an exposed stretch of road or

in a tunnel," he explains. That's why a sophisticated thermally and noise-insulated glass is available for all four-door Porsche models.

Unlike the conventional single-layer safety glass used for the sides and rear, this glass features five layers: glass, three layers of film, and then glass again. The middle layer of the three polyvinyl butyral (PVB) films has special acoustic properties that absorb much of the oscillation of the surrounding glass. This reduces outside noise by up to 7.3 per cent in a frequency range of 630 hertz to 6.3 kilohertz. "That doesn't sound like much, but everyone who's ever tested the difference in driving conditions is impressed," continues Ochs. It effectively covers the range that the human ear is most sensitive to, which is approximately 3.5 to 4.0 kilohertz. Police, fire engine, and ambulance sirens remain just as loud as always, as they fall within the frequencies between 360 and 630 hertz virtually all over the world.

Noise-insulated glass in all windows

Porsche installs the noise-insulated glass throughout, including in the tiny triangular panes and, of course, the rear window. A secondary effect is that the acoustic glass weighs a little less than the standard offering. In the case of the Panamera, the reduction in weight is around two kilograms. In addition, the extra layer of film makes the glass more resistant to break-ins. The additional insulation can always be ordered in combination with the thermally insulated glass, which looks no different from the standard glass. The thermally and noise-insulated glass can, of course, also be combined with the ever-popular privacy glass. The lightweight glass option offers comparable noise reduction for two-door models.

Info

Text first published in the Porsche customer magazine Christophorus, No. 401.

Author: Thorsten Elbrigmann

Illustration: Design Hoch Drei

MEDIA ENQUIRIES



Jonas Bierschneider

Spokesperson Research, Development and Technology
+49 (0) 170 / 911 4296
jonas.bierschneider@porsche.de

Consumption data

Taycan Turbo S (Predecessor model)

*Further information on the official fuel consumption and the official specific CO_2 emissions of new passenger cars can be found in the "Leitfaden über den Kraftstoffverbrauch, die CO_2-Emissionen und den Stromverbrauch neuer Personenkraftwagen" (Fuel Consumption, CO_2Emissions and Electricity Consumption Guide for New Passenger Cars), which is available free of charge at all sales outlets and from DAT (Deutsche Automobil Treuhand GmbH, Helmuth-Hirth-Str. 1, 73760 Ostfildern-Scharnhausen, www.dat.de).

Image Sublines

Path: Peace and quiet on the road: thermally and noise-insulated glass by Porsche/Images/img_1.jpg
Title: Taycan Turbo S, carrara white metallic, Taycan Media Drive, Europe, 2019, Porsche AG
Subline: The influence of outside noise is most noticeable in a highway tunnel

Link Collection

Link to this article
https://newsroom.porsche.com/en/2021/innovation/porsche-thermally-noise-insulated-glass-christophorus-401-26834.html

Media Package
https://pmdb.porsche.de/newsroomzips/ed824f57-9d8c-4c51-b67e-df1b54cbd633.zip

External Links
https://christophorus.porsche.com/en.html