



## Anti-Squeak and Stay Clean Technology for car interior materials and class A surfaces

With ongoing technological innovations in the automotive section such as electric cars, the arrival of the self-driving car is a matter of time. This (r)evolution will undoubtedly bring about major challenges for the automotive industry. As automotive expert Ferdinand Dudenhöffer, Professor at the University of Duisburg/Essen says, “With the introduction of autonomous driving, the automotive industry is set to face its greatest revolution in 150 years. The interior will become the heart of the car. As a result, the car interior industry, their solutions and the materials used are extremely important for both car manufacturers and end users.”

One of the major implications will be that OEMs have to pay extra attention to the coatings they use in car interiors. Corresponding to noise reduction in cars in the last decades, anti-squeak became increasingly important, the more so since the introduction of – and change to – electric cars. Because cars are (becoming) so silent, it is of the utmost importance for the coatings to be free of squeak and rattle.

### Car interior annoyances

J.D. Power, a world• ]wide market research and consulting firm, conducted a global research about car annoyances among car owners in 2014. The results regarding car interior show that:

- **Squeaking car interior** was one of the biggest annoyances of car owners in 2014. It was registered as one of the most relevant issues that bother new car owners.
- The biggest hassle is when seat materials **scuff and soil** easily. This irritation is mentioned more than twice often as other things that were bothering them. This annoyance has been growing considerably in recent years as car interior designers are increasingly applying pale colored materials to create a lush atmosphere.
- Especially **blue dye-transfer** is a top-1 seat issue. Customers worry about denim clothes soiling their bright seat materials.

- **Clear seats** are one of the most important aspects for the overall car-appeal (8.1%). The most mentioned factor is the feel of the material: 16.0% of the respondents mention this as the most important quality in their car seats.
- Premium brands score significantly higher than non-premium brands on **seat-appeal** ranking. In the 2014-research Porsche, Jaguar and Audi were in the top-3, while other brands such as Lexus, Mercedes-Benz and BMW were also top-notch.

### **Long term**

Car seat issues remain a major factor for car owners, even after three years of ownership. Owners mention seat material as being the most problematic and by far the most serious bother, being reported twice as often as other annoyances. Seat squeak and rattle come second, while other seat-related problems, such as seats being uncomfortable, are the third largest inconvenience. In this respect premium and non-premium brands perform alike, while there appear to be large differences between brands as, after three years, the worst brand shows four times as many problems as the best.

### **Non-squeaking coatings**

Based on these statistics and on the current and future trend of cars getting more silent every year, OEMs consequently use existing technology and adapt their applications for non-squeaking coatings to protect pale colored leather and synthetic surfaces against common stains, such as dye from jeans. [Stahl's Stay Clean](#) offers an effective solution for this problem. This non-squeaking coating technology protects the surface by hindering the pick-up and migration of stains and dyes into the substrate, and [PolyMatte®](#), providing a luxurious feel to the finished article in combination with flexibility, scratch and abrasion resistance.

Latest R&D efforts at Stahl target developing next gen surface technology and solutions that enhance consumer satisfaction. Enhanced life-cycle performance of car seat surfaces are at the core of ongoing developments. Ultimately, it is about offering an edge to OEMs and interior builders to enhance brand loyalty of consumers when re-purchasing decisions are due.