



Squeaky clean, without the squeak

Chemicals applied to automotive leather at the finishing stage to make it stain-resistant have often produced an unacceptably loud squeak-effect as an unintended consequence. Italian leather chemicals manufacturer GSC has worked on a quieter solution to the problem.



In the spring of 2013, Italian specialty chemicals manufacturer GSC Group began showing its customers in the automotive leather sector a new study showing how a new anti-soiling system it has developed can pass the stick-slip test to which automotive leather is often subjected. GSC makes a range of products for leather production and markets them under the Ber Chimica, Exel Tecnologie, GSC, Letex and Vandoni brands.

The stick-slip test uses specialist equipment to measure how much noise two materials will generate when they come into contact with one another, which is also known as “the squeak effect”. The testing equipment records the result based on the levels of friction between them.

Using existing equipment and existing test methods, GSC says it can show that its new anti-soiling products can offer something new to the automotive sector. The finishing technology it has used has passed tests for anti-squeak, using a stick-slip testing rig, while also registering good results in resistance to staining, allowing tanners and their automotive customers to gauge the “cleanability” of leather without having to worry about the squeak effect.

Like many rival leather chemicals manufacturers, GSC says it has been working for some time to help tanners improve the stain-resistance of finished leather. The company’s experience is that automotive tanners have been largely successful in addressing the problem of stain-resistance in leather, but at the expense of accentuating the squeak-effect of the finished leather in question, often to the point of making the finished

leather unacceptable to automotive seat manufacturers and customers.

Thanks to close co-operation between customers and a technical team of its own comprising ten people (from a total workforce of around 100) wholly dedicated to the automotive industry, working in a laboratory that is fully equipped with all the necessary testing equipment, GSC says it has been able to develop excellent results in resistance to staining without an unacceptable squeak-effect. It achieved this in tests with the staining agents most widely used for testing for the automotive industry, which is to say those used by EMPA, the Swiss material sciences and technology research institute, EMPA in its tests EMPA 1172, EMPA 104 and EMPA128/1. GSC has said its work on developing water-repellent fatliquors helped it solve the problem, which it believes will provide tanners with important added value.

The company can point to 20 years’ experience in supplying product to automotive tanners producing leather specifically for car interiors and has pledged to engage in a detailed discussion on the subject with any company in this sector that wants to improve its performance. Based in Arzignano, the largest tanning cluster in Europe, it says it pays close attention to environmental management and is working hard to keep its own carbon emissions low, for example through the installation of a solar-energy plant covering 6,000 square-metres, capable of producing 300,000 kilowatt-hours of energy a year, a move that lowers GSC’s output of carbon emissions by an estimated 200,000 kilos per year. ☉