

Press Release

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New, innovative liquid-applied sound deadeners for the automobile industry

Henkel launches range of new Teroson LASD products offering enhanced application and sustainability benefits

Henkel Adhesive Technologies has expanded its portfolio of liquid-applied sound deadeners (LASD) for the automobile industry. Newly added to the portfolio are Teroson LASD grades based on renewable oils (renewable thermosets) for use in the paint shop and body shop department. Also new is a water-based acrylic system offering excellent interaction between the polymers employed and the special fillers introduced to achieve maximum vibration damping combined with controlled, minimized abrasiveness. In a joint project with the BMW Group and ABB, the waterborne technology and the associated application technique have been specifically developed for future use worldwide in the new BMW 3 series.

“Because of the advantages they offer in lightweight construction, liquid-applied sound deadeners are definitely on an upward climb. And our range of Teroson rubber, renewable thermoset, and acrylic systems has been certified by many renowned automobile manufacturers,” says Thorsten Kraft, Head of Global Project LASD at Henkel Adhesive Technologies. The success of our innovative LASD technology is due primarily to the process reliability and application accuracy achievable with spray compounds compared to classic piecemeal bituminous matting. This maximizes acoustic attenuation potential, while the low weight contributes to reducing fuel consumption and thus vehicle emissions (CO₂).”



In addition, the Teroson LASD compounds from Henkel also impress with their greater application flexibility and enhanced process stability. Their outstanding acoustic performance and low abrasiveness compared to competitor products bring additional total-cost advantages, not least due to reduced wear in pumping, metering and spray equipment.

Successful joint project with BMW

Henkel also supports its customers through its network of local LASD technology centers for qualifying and optimizing the most suitable materials and process systems for each application. Just such a project was implemented in close cooperation with the BMW Group and ABB (Robotics) at the Henkel Adhesives LASD Competence Center in Heidelberg to ascertain the suitability of Teroson AL 7155, a water-based acrylic sound deadener, for the new BMW 3 series. With the project team having successfully validated the basic functionality of the technology, the application is now to be taken through to series production at a BMW pilot application line in Munich.

This innovative Henkel product has satisfied the prerequisites for series approval specified by the BMW Group. It facilitates a considerable reduction in weight of more than 20 percent compared to melting sheets offering similar acoustic performance, thus making it a significantly more sustainable choice. The fact that the process is readily implementable while also being highly stable is also an enormous advantage when it comes to upscaling for full industrial production. The exceptional acoustic performance of the LASD system also meets the highest quality demands.

“Right from the start, the close, open and transparent mode of collaboration within the team also proved to be enormously valuable,” recalls Kraft. “This enabled us to satisfy many of the high requirements placed on the technology early on in the project. We intend to continue this beneficial alliance in the hope that the success of this LASD application can be transferred to further vehicle models.”

All Teroson LASD products for the automobile industry are specifically approved for automated application techniques and can be sprayed on in thicknesses of over 5 mm, even overhead, without dripping or slipping. The compounds follow a defined curing curve aligned to the specific customer process and fulfill the high demands relating to contour accuracy and surface evenness. Spray application by robots is more precise, faster and cleaner than the manual insertion of conventional bitumen mats. The logistical cost is significantly decreased, while the degree of automation is substantially increased. Above all, LASD products offer considerable potential for weight reduction.

New, sustainable solutions

The main application encountered in automotive engineering is that of acoustic damping floor assemblies, doors, roofs and partitions. Here, PVC- and rubber-based Teroson products have long proven their value. “The water-based acrylic system now envisaged for the BMW application uses a revolutionary new emulsion technology that allows customized adaptation to specific customer processes,” explains Ralf Sauer, Henkel’s product development manager responsible for the project. “We are able, for example, to modify the maximum acoustic performance of the products in order, say, to achieve a specific degree of vibration damping.” At the same time, the abrasiveness of the compounds is being further minimized.

The most sustainable solutions are those using the new renewable thermoset LASDs from Henkel, which are suitable both for typical body shop applications and for use in the paint shop. “The new and advanced Teroson liquid-applied sound deadeners are free of phthalate plasticizers, they are free of solvents and they fulfill OEM requirements with respect to VOCs and fogging emissions as per the standards VDA Norm 276 and 278 of the German Association of the Automotive Industry,” emphasizes Sauer. “And all our products are available in the same quality everywhere in the world.”

Given that the automobile industry still has to significantly reduce the CO₂ emissions of its vehicle fleets by 2020 and then again by 2025, Henkel expects the market for weight-saving LASD products to both grow considerably and to become more competitive. With several regional LASD technology centers and Teroson production sites on every continent, the company is ideally placed to meet the high demand anticipated for the coming years.

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Henkel operates worldwide with leading brands and technologies in three business units: Laundry & Home Care, Beauty Care and Adhesive Technologies. Founded in 1876, Henkel holds globally leading market positions, both in the consumer and in the industrial businesses, with well-known brands such as Persil, Schwarzkopf and Loctite. Henkel employs about 50,000 people and reported sales of 18.1 billion euros and adjusted operating profit of 2.9 billion euros in fiscal 2015. Henkel's preferred shares are listed in the German stock index DAX.

Photo material is available at www.henkel.com/press.

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The following material is available:



Weight-saving, clean and efficient: Automated application of LASD compounds in the paint shop. (Photo: Henkel, PR015)



New, innovative liquid-applied sound deadeners for the automobile industry. (Photo: Henkel, PR015)

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Alternatively for very high resolution pictures please contact Kevin Noels

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