News Release

Basotect® melamine foam from BASF featured on Volkswagen engine covers

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- **High-performance material combines low weight, high sound absorption and high temperature resistance**
- **Quiet ride despite increased engine performance**

BASF's sound-absorbing Basotect® TG melamine foam is now being used for the acoustic layer in the Volkswagen EA888 engine for the Jetta, Golf, Passat, Tiguan, and Beetle models produced in North America. Volkswagen chose Basotect®-based acoustic parts provided by the foam converter Rogers Foam of Somerville, MA, that are further assembled by the Tier 1 supplier of the engine cover, Exo-s, of Sherbrooke, Canada.

"In order to meet the ever-tightening North American automotive fuel efficiency and emission standards, smaller, higher-performing and direct-injection engines are being used in today's automotive manufacturing", says Holli Woodard, Market Development Specialist for Basotect® in North America. "These engines create higher levels of heat and noise that impact the driving comfort. Car manufacturers and suppliers are increasingly looking for new materials to solve this challenge". The engine cover developed by Exo-s and Rogers Foam using BASF's Basotect® TG foam was able to meet VW's needs.

Basotect® TG is the only thermoset melamine foam, which is specifically manufactured for thermoforming in order to make

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sophisticated three-dimensional components and customized elements for tight spaces.

Reduction of fuel consumption and CO_2 emissions

The use of Basotect® on the engine cover helps to address multiple challenges faced by automotive manufacturers: It provides superior noise absorption, flame resistance and weight reduction in the high heat environment of the engine compartment.

Because of its open-cell, fine foam structure, the sound absorption values in the medium and high frequency ranges are very good. The use of a non-woven fleece covering the BASF foam helps increase the noise insulation over the whole range of frequencies. This acoustic insulation ensures Volkswagen drivers and passengers will have a superior driving experience.

Furthermore Basotect® makes the engine cover flame-retardant and prevents it from maintaining a flame. These fire resistant properties aid in Basotect®'s ability to meet the UL 94 V-0 fire rating. The BASF foam can withstand temperatures up to 460 ºF (240 °C) while maintaining its NVH properties.

With a density of only 9 kg/m^3, Basotect® TG is also much lighter than conventional insulating materials used in under-hood applications, which is highly desirable as it reduces both fuel consumption and CO_2 emissions.

A benchmark for small turbocharged engines

All parties worked together from the onset of this program specifically for production in North America. The EA888 engine cover is currently being manufactured for use in the VW facilities in Chattanooga, TN and Puebla, Mexico, with future plans to expand the EA888 engine cover line.

Volkswagen's EA888 four cylinder engine has set the benchmark for small-displacement turbocharged engines. Designed to be lighter and

more fuel-efficient, the new EA888 Gen 3 is turbocharged and the direct-injection four-cylinder's additional low-speed torque has also enhanced the performance of the car.

About Basotect®

Basotect® foam has a unique range of properties. Its base material makes it flame-retardant and abrasive; it can be used at up to 240°C and retains its properties over a wide temperature range. Because of its open-cell foam structure, it is light, sound-absorbing, flexible even at low temperatures and thermally insulating.
Basotect® is a registered trademark of BASF SE.
www.basotect.com

About BASF's Performance Materials Division

BASF's Performance Materials division encompasses the entire materials know-how of BASF regarding innovative, customized plastics under one roof. Globally active in four major industry sectors - transportation, construction, industrial applications and consumer goods – the division has a strong portfolio of products and services combined with a deep understanding of application-oriented system solutions. Key drivers of profitability and growth are our close collaboration with customers and a clear focus on solutions. Strong capabilities in R&D provide the basis to develop innovative products and applications. In 2014, the Performance Materials division achieved global sales of € 6.5 bn.
More information online: www.performance-materials.basf.com

About BASF

At BASF, we create chemistry – and have been doing so for 150 years. Our portfolio ranges from chemicals, plastics, performance products and crop protection products to oil and gas. As the world's leading chemical company, we combine economic success with environmental protection and social responsibility. Through science and innovation, we enable our customers in nearly every industry to meet the current and future needs of society. Our products and solutions contribute to conserving resources, ensuring nutrition and improving quality of life. We have summed up this contribution in our corporate purpose: We create chemistry for a sustainable future. BASF had sales of over €74 billion in 2014 and around 113,000 employees as of the end of the year. BASF shares are traded on the stock exchanges in Frankfurt (BAS), London (BFA) and Zurich (AN). Further information on BASF is available on the Internet at www.basf.com.