WHITE PAPER





HEAVY DUTY VEHICLE UNDERBODY PROTECTION

IMPROVED DURABILITY, LONGEVITY AND COMFORT WITH ACOUSTIC UNDERBODY COATING

INTORDUCTION

Most roads we travel are far away from being smooth and quite. But then again public transport operators and government bodies are demanding high standards for interior and exterior vehicle noise. In addition, longevity and durability of the commercial transportation vehicles is required. Sika offers high-technology solution to facilitate significant reductions in vehicle noise via absorption of vibration within the vehicle body.

Sikagard®-6682 sound-deadening and anti-chip coating was developed for the transportation market to improve vehicle acoustic performance, reducing road noise and structure-borne vibration noise, to provide a quieter ride for both, drivers and vehicle occupants. It demonstrates excellent durability thanks to its high abrasion and impact resistance even at very low temperatures.



TECHNOLOGY OF Sikagard®-6682

Sikagard®-6682 is a spreadable and sprayable sound deadening and anti-chip coating, based on an acrylic dispersion. It is used to dampen the structure borne sound emitted by metal or hard plastic sheets. Further, Sikagard®-6682 provides an anti-stone chip coating to vulnerable parts of the vehicle and enhances the corrosion performance of pre-applied coatings.

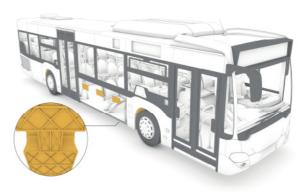
APPLICATION AREAS

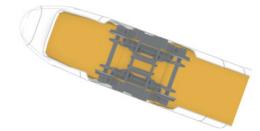
Sikagard®-6682 is applied on the underbody of commercial transportation vehicles for stone chip and sound protection. It is further used for specific noise reduction areas inside the vehicles.

PRODUCT DATA & BENEFITS

Application temperature	5 - 35°C
Drying time (2mm wet layer)	24 hours
Loss factor (ISO 6721-3) 3mm thickness on steel, 20°C, 200 Hz	0.25
Application thickness	1000 – 5000 μm
■ Excellent sag resistance, no dripping	
■ Excellent sound deadening effect	
■ High resistance to abrasion	
■ Solvent free	

For details consult the corresponding Product Datasheet and ask your Sika contact about availability in your country.

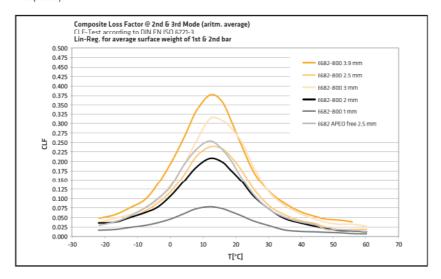




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NOISE REDUCTION PERFORMANCE

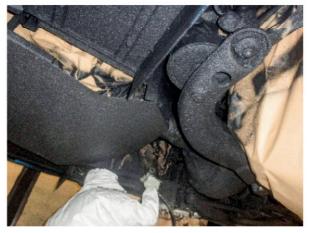
Sikagard®-6682 provides significant performance in sound reduction on trains, buses, recreational vehicles, engine supports and vehicle parts. Customers have seen up to a 30% reduction in noise. Application thickness must be chosen based on noise reduction requirements. The Oberst Loss factor graph on the right shows the composite loss factor with different thicknesses applied at 200Hz frequency.



APPLICATION OF PRODUCT

In addition to providing noise reduction, Sikagard®-6682 is a durable anti-stone and anti-chip coating to vulnerable parts of the vehicle, helping to enhance corrosion performance of pre-applied coatings. It exhibits excellent adhesion to commonly used coatings and primers used in the transportation industry, including those on metallic and wood substrates. It has good resistance to abrasion and is over-paintable, making it a versatile option for many different areas on a vehicle.

Sikagard®-6682 was designed with the needs of modern manufacturing conditions in mind. The product is a water-based acrylic product and is easily applied with standard spray equipment without drips or mess. It can be applied up to 5 mm thick in one application with no sag, making it ideal for hard-to-reach areas in underbody situations. Applicators particularly like the "cleaniness" of the application and very limited overspray behavior with Sikagard®-6682. This all makes it a sustainable solution for workers, commercial vehicle producers and fleet operators.



Application on a train underbody



Wheel arch with Sikagard®-6682 applied

Sika ®

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APPLICATION TOOLS

Sikagard®-6682 can be applied to small areas with a spatula. For larger areas airless spraying equipment is recommended. Usually double-action stainless steel pump systems are used. Contact the System Engineering of Sika Industry for specific advice for application equipment. Applied coating must be sufficiently dried before exposure to wet conditions. Exact timings has to be established on project related basis. Proper ventilation helps to ensure faster drying.

APPLICATION BY PUMP

For the application of SikaGard®-6682, it is recommended to use a double action stainless steel pump application system, eg. Graco D200. The product is available in 23L hobbocks and 195L drums.

RECOMMENDATIONS

- Use airless spray guns only!
- Nozzle size: 535
- 160 200 bar fluid pressure

HOSE

- 1/4" diameter and 1 2 m length prior gun
- 3/8" diameter and 3 4 m length
- 11/2" diameter feeding hoses





MARTIN GANSNER

Global Marketing & Product Manager Supporting the Bus & Rail Industry with sealing, bonding and fire protection solutions.

For more details on Sika solutions for Transportation contact us or visit our website www.sika.com/transportation.

LEGAL NOTE

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. in practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the products suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.