

DR. RALPH DERRA

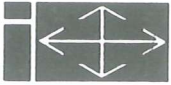
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**ISEGA – Forschungs-
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3 May 2011
Dr. Dr./rd-hu

EXPERT'S OPINION

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for Messrs: PPG Coatings Deutschland GmbH
An der Halde 1
44805 Bochum / Germany

Product: Sigma Immun Satin

The product manufactured by the company mentioned above was examined according to ISO 22196:2007 for its antibacterial efficacy. As test germs the gram-positive germ *Staphylococcus aureus*, the Methicillin resistant *Staphylococcus aureus* (MRSA), as well as the gram-negative *Escherichia coli* were chosen. These organisms can cause infections in animals and humans. Especially in the clinical sector these germs are responsible for a variety of secondary infectious diseases.

The results are summarized in the test report no. 4550/6 (Sample 2) of 21 April 2011 of the company ISEGA - Forschungs- und Untersuchungs-Gesellschaft mbH Aschaffenburg.

After the test germs being in contact with above-mentioned product for 6 h at 35 °C, the amount of germs of *S. aureus* was > 33,000 times lower, the amount of *S. aureus* (MRSA) was > 18,000 times lower and the amount of germs of *E. coli* was > 9,000 times lower compared to a reference sample which was not antibacterially equipped.

These results verify a high bacterial activity of the product against the tested germs.

This expert's opinion was issued to the best of our knowledge and belief. It consists of 1 page.



(Dr. Riedlinger)
Microbiologist

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