



## Elpemer® Solder Resist: Flexible and Reliable

**Kempen, January 4, 2023** – Flexible, reliable, efficient: Elpemer® solder resist SD 2463 FLEX-HF stands for quality made in Germany. Available in the colours transparent green and amber, the FLEX resist from Peters is suitable for rigid-flex and semi-flex PCBs. In addition to the three features "easy spray or screen printing application", "direct or contact exposure" and "flex-to-install", the Peters solder resist is free from the harmful SVHC photoinitiators 369 and 907.

For flexible electronic circuit carriers, SD 2463 FLEX-HF is therefore the ideal product for all fields of application. The physical and mechanical properties of the solder resist are state-of-the-art. "Flex-to-install" means that the ink is flexible under bending stress when the circuit board is installed," explains laboratory manager Detlev Schucht.

As one of its strengths, this solder resist is capable of reliably covering all areas of a PCB that shall not receive solder in subsequent soldering processes. R&D Manager Detlev Schucht explains: "Great hardness and scratch resistance achieved after final curing protect the PCB from mechanical damage in further handling".

The Elpemer® solder resist SD 2463 FLEX-HF is mainly chosen in the automotive and aerospace sectors. "In addition, the fields of application have expanded to sensor technology and medical technology," reports Michael Kollasa. The head of field sales at Peters presumes that the solder resists will become more important in the field of flexible substrates. Leading manufacturers of demanding flex, rigid-flex and HDI substrates have chosen the Elpemer® solder resist SD 2463 FLEX-HF for more than six years now.

As an example for medical technology, Michael Kollasa cites hearing aids that require multiple folded flexible circuit boards in order to take up a minimum of space. "The bending diameters are very small, down to 1 mm," reports Michael Kollasa.

The highly flexible two-component solder resist developed in the Peters labs is a photoimageable ink. Thanks to a resolution of

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## THE PETERS GROUP

... based in Kempen, Germany, is an independent family-owned company and the only full-range supplier of coating materials in the world.

As market leader in high-tech coatings for the manufacture and protection of assemblies and electronic components, Peters supplies its products for a use in automotive electronics, aerospace engineering, industrial electronics, medical technology, LED applications or other industrial applications.

For more than 50 years, our highly specialised research and development team has been working closely with our customers to develop innovative, trend-setting and practical solutions.

With international sales offices and around 65 agencies abroad, we are the competent local partner in over 90 countries serving more than 4000 customers.

< 40 µm (direct exposure) and its excellent dielectric properties, the protective coating is chosen for ultra-fine conductors and in SMD technology, as an alternative to flexible cover foils. The solder resists of this series are applied by horizontal or vertical double-sided screen printing and are aqueous-alkaline developed. "They are characterised by fast and easy processability, low exposure energy and resistance in chemical baths," says Sven Kramer, head of application technology at Peters. The solder resist shows an outstanding resistance in chemical and galvanic nickel/gold and chemical tin baths, besides OSP processes.

The criterion "free from toxic photoinitiators" is another advantage of Elpemer® solder resist SD 2463 FLEX-HF. "This product is absolutely up to date, reflecting technical progress and meeting international safety standards," emphasises Sven Kramer, who is also product manager for the Peters Elpemer® family of products at the world's only full-range supplier of coating materials for electronics. According to Sven Kramer, the criterion "without photoinitiator 907 and without other SVHC" is a unique selling point that Peters can claim for itself. "After all, we were the first in the world to present a modern and harmless solder resist for both exposure processes," adds laboratory manager Detlev Schucht.

Following the Peters expertise in special coatings, the Elpemer® solder resist SD 2463 FLEX-HF is halogen-free in accordance with JPCA-ES-01-1999 and has good solder bath resistance even with lead-free solder. In addition, Elpemer® solder resist SD 2463 FLEX-HF shows the best flame class UL 94 V-0, UL File No. E80315. This is the registered trademark of Underwriters Laboratories Inc., Northbrook, Illinois, which is the world's most recognised testing authority.

The Peters team also points to the constant availability of Elpemer® solder resists.

#FLEXLack

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