

## ELPEGUARD® SL 1800 FLZ defying extreme frost



Stefan Schröder in the climate laboratory where ELPEGUARD® SL 1800 FLZ was tested under extreme conditions in the new test cabinet. Result: The temperature shock resistance of the Peters newcomer is extraordinary. Photo: Axel Küppers

Kempen, January 17, 2023 – ELPEGUARD® SL 1800 FLZ impresses with its temperature flexibility, especially at low temperatures. The new product from the Peters' research labs exceeds the industrial standard for cold-flexible acrylates by as much as 25 degrees. In other words, the conformal coating does not show any negative effects even under temperature shocks between 125 °C and -65 °C. "For the automotive and aviation sectors, it is now required to go beyond the lowest point of -40 °C into even more extreme frost layers. Our ELPEGUARD® product meets the demand claimed by these industries," reports Stefan Schröder.

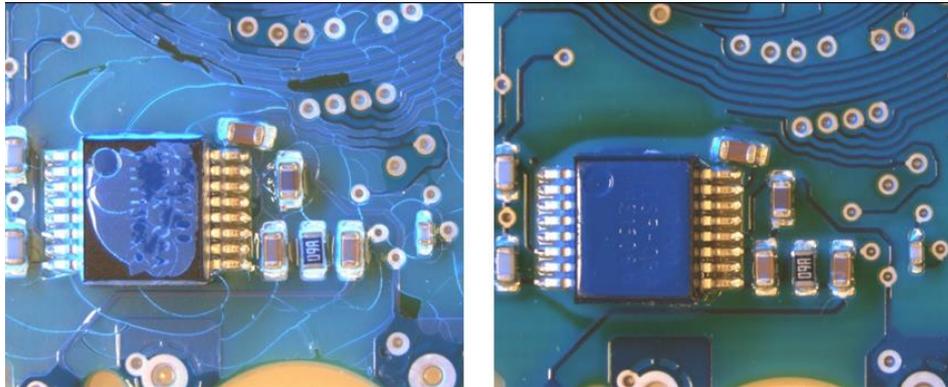
The Global Product Manager Conformal Coatings refers to long-term tests performed in the Peters climate laboratory. In a test cabinet of the latest generation, i.e. the VT³ 7012 S2 temperature shock system, electronic components and printed circuit boards undergo multiple rapid temperature changes in ranges between -80 °C and +220 °C.

After the completion of this test phase, graduate engineer Stefan Schröder emphasises that with SL 1800 FLZ, the further development of the Peters classic from the ELPEGUARD® 1307 conformal coating family can be considered successful. With ELPEGUARD® SL 1800 FLZ, the highly specialised research and development team in Kempen has once again come up with a forward-looking and practice-oriented solution. "The newcomer has even better end properties," says Stefan Schröder.

From the family of physically drying thin-film coatings, this modified acrylate is the measure of all things on the world market. Besides its high thermal shock resistance, the Peters ink also features a good wetting of silicone-contaminated surfaces when choosing the ELPEGUARD® conformal coatings of the SL 1801 FLZ series.

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On the left, a conventional conformal coating under thermal shock of down to  $-65^{\circ}\text{C}$ , on the right, ELPEGUARD® SL 1800 FLZ: The surface of the board shows no cracking even under extreme frost. Photos: Peters

What makes the difference and the icing on the cake for the relevant industries for choosing ELPEGUARD® SL 1800 FLZ is, according to Stefan Schröder, its extreme resistance to even very low temperatures. In the automotive industry, for example, one has to take into account that vehicles have to be reliably operational even in regions with permanent frost below  $-40^{\circ}\text{C}$ . In space, the circuit boards

and their coatings are exposed to even lower sub-zero temperatures. As Stefan Schröder puts it, this kind of frost could be dangerous for conventional acrylics, as hairline cracks could lead to moisture penetration causing, in the worst case, failure of electronics. With ELPEGUARD® SL 1800 FLZ, there is no risk of dendrites forming even under difficult environmental conditions, provided the coating has been applied properly. Coating engineer Stefan Schröder: "And that is exactly why high-tech industries play it safe trusting the cold-flexible acrylate from Peters.

### Meets the best flame class

What also speaks in favour of ELPEGUARD® SL 1800 FLZ is that it meets the best flame class according to UL. In other words, the single-component component coating has reached flame class UL 94 V-0, UL File No. E80315. UL is the registered trademark of Underwriters Laboratories Inc., of Northbrook, Illinois, the internationally recognised testing authority.

"In addition, the ink is repairable - which is also what customers ask for nowadays", reports Stefan Schröder. This allows saving costs in the long run. Repairable means that one can easily remove ELPEGUARD® with the thinner V 1800 and reapply it after repair.

Stefan Schröder concludes: "The new product of the ELPEGUARD® SL 1800 FLZ series is excellently suited for protecting and insulating assembled printed circuit boards, so that they can meet even higher requirements in terms of reliability and service life." The ink also offers an outstanding protection against e-corrosion thanks to its high resistance to moisture and condensation water.

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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.

By developing ELPEGUARD® SL 1800 FLZ, the Peters Group underlines its leading world market position in the field of high-tech coatings for electronics, from the manufacture of printed circuit boards and the protection of assemblies and electronic components up to integrated solutions for coating technology. According to Peters CEO Ralf Schwartz, high-tech coatings can be used in all kinds of industrial applications, and Peters is ready to deliver at any time.

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