









Outdoor applications, such as signal lamps, information panels, motor vehicle lights, etc., are exposed to exceptional climatic influences. We have developed special products for this application field that not only protect against environmental influences but also fulfil highest functional and optical demands like very high transparency or light diffusion.

Application	Requirement/special product properties	ELPELIGHT® product
transparent conformal coating of optical assemblies, such as sensors or LEDs  	<ul style="list-style-type: none"> high transparency and yellowing resistance individual transparent colouring in red, green or blue water-thinnable and fast drying 	ELPEGUARD® conformal coatings of the series SL 1305 AQ-ECO
	<ul style="list-style-type: none"> high transparency and extremely high yellowing resistance fastest drying and easy repair - also available in handy spray tins 	ELPEGUARD® conformal coatings of the series SL 1307
	<ul style="list-style-type: none"> (highly) thixotropic adjustment for high definition dispenser application of dams around plugs, components and pads to limit the application area of a subsequent conformal coating (dam and fill) 	ELPEGUARD® conformal coating SL 1307 FLZ-T and SL 1307 FLZ-HT (highly thixotropic) in cartridges
	<ul style="list-style-type: none"> high transparency and yellowing resistance solvent-free, UV curing, shadow curing without additional tempering 	ELPEGUARD® thick film lacquers of the series TWIN-CURE® DSL 1600 E-FLZ
	<ul style="list-style-type: none"> can be used at high temperatures up to 180 °C and under strong moisture stress, high chemical resistance DSL 1705 FLZ: addition cross linking, thermal curing, for thick film applications up to 3 mm DSL 1706 FLZ: condensation cross linking at room temperature, for thick film applications up to 300 µm DSL 1707 FLZ: UV curing, shadow curing without additional tempering, microencapsulation of small components possible 	ELPEGUARD® silicone thick film lacquer DSL 1705 FLZ DSL 1706 FLZ series TWIN-CURE® DSL 1707 FLZ
white or black conformal coating of LED assemblies 	<ul style="list-style-type: none"> reliable protection and enhanced contrast of the LEDs to a non-reflective background through selective application of a black opaque, mat conformal coating 	ELPEGUARD® conformal coating SL 1347
	<ul style="list-style-type: none"> high luminous efficacy and reliable protection against moisture through selective application of a white opaque conformal coating. The LEDs are left uncoated, dark components are hidden and the luminous efficacy is amplified by the extremely high reflectivity; high UV and thermal stability 	ELPEGUARD® conformal coating SL 1397 and SL 1397 HV (highly viscous)
clear potting of optical assemblies  	<ul style="list-style-type: none"> colourless and crystal clear, excellent transparency, for highest demands on optical properties, very good weather resistance, excellent UV light stability and good thermal resistance, selected adjustments suitable for underwater use light diffusing effect or colouration by the addition of hazing paste or dyestuff concentrate 	Wepuran casting resins of the series VT 3402 KK
	<ul style="list-style-type: none"> clear and highly transparent with good weather and UV light stability, thus ideal for applications with moderate demands on the optical properties, e.g. to pot assemblies that must remain permanently visible; easy to remove for repair purposes 	Wepuran casting resin VT 3405
	<ul style="list-style-type: none"> colourless and clear transparent, weather and UV resistant, very high elasticity and tear strength excellent thermal resistance up to 200 °C high optical temperature resistance up to 150 °C, thus also suitable for encapsulating power LEDs 	Wepesil casting resin VT 3602 KK
opaque black, blue or white potting of optical assemblies 	<ul style="list-style-type: none"> can be applied up to 120 °C, low viscosity, black, for indoor applications 	Wepuran casting compound VU 4442/61 HE
	<ul style="list-style-type: none"> can be applied up to 90 °C, hardly flammable, extremely weather resistant and resistant to UV light radiation, no loss of gloss or adhesion, almost no yellowing of VU 4494/31 SB-WB 	Wepuran casting compound VU 4444/31 SB-WB, black, and VU 4494/31 SB-WB, white
	<ul style="list-style-type: none"> can be applied up to 130 °C, exceptional water resistance and hydrolytic stability and high mechanical strength, thus especially suitable for underwater applications 	Wepuran casting compound VU 4453/101 WR, blue, and VU 4443/92 WR-NV, black
	<ul style="list-style-type: none"> can be applied up to 90 °C, white, even when exposed to intense sunlight only very slight yellowing 	Wepuran casting compound VU 4490/31 K
substrate coating, e.g. under LEDs 	<ul style="list-style-type: none"> optimises the light emission of LEDs, very high reflectivity of the substrate through application of a „neutral“ white opaque solder mask (colour of white LEDs is not falsified) pure white colour even after lead-free reflow, soldering and tempering processes also for flexible applications 	white solder resists ELPEMER® SD 2491 SG-TSW-R5, photoimageable SD 2496 TSW, thermal curing SD 2490/201 UV-FLEX-HF, UV curing, flexible
	<ul style="list-style-type: none"> minimum light reflection from the substrate by using a black solder resist increased contrast to the LED also for flexible applications 	black solder resists ELPEMER® SD 2447 XM, photoimageable SD 2446, thermal curing SD 2440/201 UV-FLEX-HF, UV curing, flexible
heat dissipation in optoelectronics 	<ul style="list-style-type: none"> heat dissipation by screen- and stencil-printable pastes with high heat conductivity to extend the life cycle of LEDs excellent electrical insulating properties compared to conventional processes: reduces the number and volume of heat transition resistances 	heatsink pastes HSP 2740 (better chemical resistance) HSP 2741 (higher flexibility)