










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"> ultra-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 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 addition cross linking, thermal curing, for thick film applications up to 3 mm 	ELPEGUARD® silicone thick film lacquer DSL 1705 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 condensation cross linking at room temperature, for thick film applications up to 300 µm 	ELPEGUARD® silicone thick film lacquers of the series DSL 1706 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
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"> yellowish transparent and highly elastic with good weather resistance, ideal for applications with no special demands on the optical properties, e.g. to pot assemblies where an opaque material does not restrict the field of use; easy to remove for repair purposes 	Wepuran casting resin VT 3404 HE
	<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, economic alternative to VT 3402 KK 	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 	Wepesil casting resin VT 3601 E
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 	Wepuran casting compound VU 4442/61 HE
	<ul style="list-style-type: none"> can be applied up to 90 °C, black, hardly flammable, extremely weather resistant 	Wepuran casting compound VU 4444/31 SB-WB
	<ul style="list-style-type: none"> can be applied up to 130 °C, blue, exceptional water resistance and hydrolytic stability and high mechanical strength, thus especially suitable for underwater applications 	Wepuran casting compound VU 4453/101 WR
	<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 SM-TSW-R2, 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 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)