

SHARDGUARD SAFETY-COATED FLUORESCENT LAMPS

In the rare case that an EncapSulite® safety-coated lamp is broken, virtually all the glass, mercury and phosphors are contained inside the high-temperature, high-mechanical strength coating. Employees, products and manufacturing sites are totally protected. Disposal or recycling is safe and easy.

Applications

ShardGuard® safety-coated fluorescent lamps offer maximum security for use in food processing areas, dairies, manufacturing areas, hospitals, pharmacies, correctional facilities, schools, bakeries, gymnasiums, cafeterias, slaughterhouses, restaurants and poultry plants, and in any area where public safety is an issue.

Industry Standard

Shatterproof ShardGuard is the only safety coating UL-recognized for safety and UL-EPH certified for environmental and public health. ShardGuard fluorescent lamps are



acceptable for incidental food contact in food, meat and poultry plants. The chemical constituents of the product and the surface characteristics of the coating are in compliance and meet current FDA, USDA and OSHA standards. This safety coating also blocks all UV transmissions between 0-380 nanometers.

Installation and Cleaning

The lamp requires no assembly and is fast and easy to install. The smooth surface is easily cleaned.

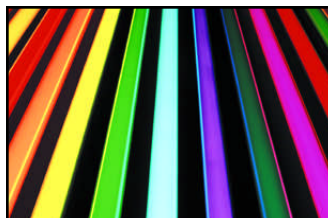
Sizes and Operating Temperature

Lamps are available in all lengths, with T5 (16mm/.625"), T6 (19mm/.75"), T8 (25mm/1"), T10 (32mm/1.25") and T12 (38mm/1.5") diameters, and for standard (400 mA), high output (800 mA) and very high output (1500 mA) operation. The ShardGuard protective coating is designed to withstand continuous service temperatures of 177-193°C/350-380°F.



Semiconductor Industry

ShardGuard safety-coated fluorescent PC Gold lamps for the semiconductor industry block all emissions below 520 nanometers.



Selection of Colored Lamps

Choose from soft, subtle colors to attention-grabbing, vibrant colors. The shatterproof feature makes them ideal for use in public places.



PTFE Safety-coated Lamps

A large selection of safety-coated lamps are available for all types of applications. They are designed to not crack nor peel.

PRODUCT COMPARISON CHART

	ShardGuard Shatterproof Lamps	PVC-coated Lamps	HotVac-coated Lamps	Plastic Tubeguards
Assembly and Installation	Ready to install right out of the shipping carton. No assembly required. The sophisticated technology of EncapSulite's safety coating insures safety for your work area or employees. There is less than 1% aluminum depreciation.	Ready to install right out of the shipping carton. The fluorescent tube and coating are self-contained.	Ready to install right out of the shipping carton. No assembly required. The translucent coating of HotVac lamps reduces light transmission (5% on a new lamp and as much as 15% as the lamp ages).	Labor intensive. Difficult to install. In many cases two people are required to assemble and install tubeguards. Breakage can occur during assembly due to the multiple parts required for tubeguard usage.
Heat Resistance	The unique coating provides superior heat resistance. EncapSulite lamps are available in standard 400 mA, 800 mA HO and 1500 mA VHO lamps. The coating stays optically clear for the life of the lamp.	PVC-coated lamps suffer from temperature sensitivity which causes the coating to yellow with use.	HotVac-coated lamps are sensitive to high temperatures. As a high temperature environment can cause the coating to fail and peel, high-temperature lamps are not available.	Polycarbonate tubeguards are sensitive to heat. Due to the high temperatures generated by HO and VHO lamps, tubeguards require special heat sink screens and high temperature caps to operate safely, causing tubeguards to suffer a 4% loss in light transmission
Safety	In the event of breakage, the EncapSulite coating and end-seal system will retain glass fragments, phosphors and mercury. In many cases the coating will prevent breakage.	Should a PVC-coated lamp fall from the fixture and break, the brittle PVC coating can split, requiring a major clean-up of glass fragments.	The safety of a HotVac lamp decreases with age due to the coating's sensitivity to heat. Constant exposure to lamp heat or a high-heat environment results in a coating breakdown.	Due to the design of tubeguards, when a fluorescent lamp breaks, it is common for the tubeguard's plastic endcaps to separate from it, resulting in glass, phosphor and mercury contamination, product damage and possible employee harm.
Cleaning	The superior smooth coating of EncapSulite lamps are easy to clean with common glass cleaners or cleaning solutions. Do not use ammonia or solvents.	Easy to clean.	The textured, uneven surface of HotVac lamps retains dust and airborne particles. The HotVac lamp cleaning process requires strong solutions in an immersion cleaning tank.	Labor intensive and time-consuming. The time and labor required to disassemble, clean, dry and then reassemble the lamp, tubeguard and endcaps are costly and frustrating.
Disposal	EncapSulite shatterproof fluorescent safety-coated lamps make disposal easy in the event of breakage. Simply fold over the broken lamp and throw it away. Replace it with a new EncapSulite lamp and you are back in business.	In the event of breakage the probability is that the PVC coating will fail, causing a major clean-up and replacement cost. Any time a lamp falls from the fixture, check for splits in the coating.	Fold and throw away.	In the event of breakage, a major clean-up will probably be required prior to disposal. Because the caps are not sealed to the tubeguard, during breakage the caps will pop off and glass can spray out, causing contamination. Clean-up and disposal can be expensive and time-consuming.

Warranty

EncapSulite International's fluorescent safety-coating is guaranteed to last the rated life of the lamp. If the coating should turn yellow, crack or otherwise fail before the end of the rated life of the lamp, EncapSulite will refund the full price of the lamp providing that the lamp was used in an ambient temperature below 57°C/135°F and that it was used with the correct ballasts within fixtures properly wired and with lampholders that provided the proper contact. EncapSulite's ShardGuard safety-coating guarantee is the standard of the industry.

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