

GLAS-LOK®

THERMOPLASTIC COATINGS

GLAS-LOK® is formulated as a functionalized polyethylene copolymer that specializes in enhancing the adhesion of glass, thereby improving mechanical resistance in fragile products. It can be applied by fluidized bed or electrostatic spray. GLAS-LOK® powders are available in transparent colors, and are an ideal coating solution for many applications, including fluorescent light bulbs, reagent bottles, and high-end chandeliers.



OVERVIEW

Glass Protection Thermoplastic Coatings.

GLAS-LOK® is a functionalized polyethylene copolymer thermoplastic powder coating explicitly designed for glassware, lighting, and ceramic products. Glas-Lok® powders surround the substrate in a durable protective plastic coating, reducing the risk of glass, lighting, or ceramics shattering upon impact.

When a receptacle or light fixture coated with GLAS-LOK® does break, the contents remain locked within the durable plastic coating. This minimizes risk, reduces cleanup times, and allows for proper disposal.

MAIN FEATURES

- **Functional** – Designed to deliver reliable, high-performance protection for glass surfaces in demanding environments.
- **Extremely Clear** – Offers outstanding optical clarity, maintaining the original transparency of the glass.
- **Excellent Impact and Flexibility** – Absorbs shocks and resists cracking, ensuring durability without compromising flexibility.
- **Excellent UV and Chemical Resistance** – Shields glass from yellowing, degradation, and surface damage caused by sunlight and harsh chemicals.

TYPICAL APPLICATIONS

Glass protection thermoplastic coatings are designed to enhance the durability, safety, and longevity of glass across a wide range of industries. From architectural facades and automotive windows to lab glassware, decorative panels, and electronic displays, these coatings provide a clear, impact-resistant, and chemical-resistant barrier that preserves both function and appearance in demanding environments.

- **Safety and Security Glass** – Protective shields, security barriers, transaction windows
- **Lab Glassware** – Beakers, flasks, test tubes, petri dishes, chemical bottles
- **Light Bulbs** – Bulb housings, lamp globes, industrial light covers, chandeliers



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TECHNICAL PROPERTIES

Essential technical details are outlined below. Full Technical Data Sheet (TDS) available upon request.

TYPE	METHOD	RESULT
GRADE		Fluidize Bed, Electrostatic Spray
SPECIFIC GRAVITY	ASTM D792	0.943 g/cm3
ADHESION	ASTM D4541	>1,527 PSI (10.7MPa)
HARDNESS SHORE D	ASTM D2240	44 ± 2
IMPACT RESISTANCE	ASTM D2794	>384 in./Lbs. (43 Joules)
TENSILE STRENGTH	ASTM G638	2207 PSI (15.2MPa)
ELONGATION (%)	ASTM D638	305%
QUV	ASTM G53	2,000 hours, no yellowing or change in gloss
TABER ABRASION FLEXIBILITY	ASTM D4060	61 mg loss, CS 17 wheel
(CONICAL MANDREL BEND)	ASTM D522	1/8 in (3.2mm), no cracks (>32%)
MELT INDEX	ASTM D1238	32
DIELECTRIC BREAKDOWN		893V/mil (387 kV/cm) @ 20 mils (508 micron)

SOLUTIONS

The Protech Group has over 50 years of experience in advanced powder and liquid coatings for metal, wood, and glass surfaces. We provide customized solutions for diverse markets and applications with expert support while prioritizing sustainability through eco-friendly materials and methods.

SUPPORT

To ensure the life of your asset is maximized, a simple and regular maintenance program should be implemented.

At the Protech Group, we prioritize your satisfaction and success. That's why we offer free support, even when challenges arise. From cleaning and phosphating all the way to the final cured film appearance, our experts are dedicated to assisting you every step of the way with proven solutions you can trust.

FORMULATING THE RIGHT MIX.

Since 1976, the Protech Group has been developing and manufacturing coatings, paints, and specialty materials. Through quality and innovation, we formulate the right mix to protect and enhance what matters most to our customers. Protech Group products are manufactured in more than 20 sites worldwide. We serve our customers in countless markets and industries, including construction, infrastructure, transportation, consumer goods, and healthcare.



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