ALGLAS® Finish - Creating Superior Reflector Surfaces

1. Chemical Composition: The ALGLAS® coating is a thin, transparent, flexible coating of very high quality, heat-cured glass which has been chemically bonded to an aluminium reflector surface.

2. Surface Smoothness: Surfaces of ALGLAS®, prismatic glass and other types of coatings were assessed using a profilometer to measure smoothness. The traces of prismatic glass and other coatings revealed significantly more light scattering, rippling and roughness than did the ALGLAS® trace. Electron microscope observances confirmed this finding.

3. Coating Continuity: ALGLAS® coating is continuous and pinhole free. Complete immersion of the reflector in the silicate solution ensures uniform coating of all surfaces.

4. Cleanability: ALGLAS® finish is smoother than pressed glass and readily lends itself to thorough cleaning with a standard detergent and water.

5. Durability and Safety: ALGLAS® is a high quality glass coating that is chemically inert, giving it the chemical durability of plate glass. Reflectors coated with ALGLAS® are lightweight and unbreakable, as opposed to heavy conventional prismatic glass reflectors that are breakable and potentially dangerous.

6. Resistance to Chemical Attack: The ALGLAS® finish is superior to the other coating finishes and comparable to borosilicate glass in resistance to chemical attack (table shows partial list of reagents tested).

7. Optical Performance: Outstanding smoothness of the ALGLAS® finish results in optimum reflector specularity and the high light transmission of the unique coating results in maximum reflector efficiency. ALGLAS® coated reflectors can be uniformly produced on precision tooling in contrast to the production of pressed glass reflectors where tool degradation, with time, causes imperfections in the prismatic glass surfaces.

8. Resistance to Corrosive Environments: ALGLAS®-coated samples have remained bright and specular after 2500 hours in salt fog. ALGLAS® finish also showed superior seacoast weathering characteristics over a seven-year period.

Resistance To Chemical Attack	
CHEMICAL REAGENTS	REFLECTOR SURFACES ALGLAS®
Acids	
Hydrochloric	N
Sulfuric	N
Nitric	N
Hydrofluoric	AV
Bases	
Sodium Hydroxide	AS
Hydroxylamine	N
Salts	
Sodium Chloride	N
Gases	
SO^2	N
NO^2	N

N = No Effect AS = Attacks Slowly

AV = Attacks Vigorously

Information referenced from *GE Lighting Systems, Inc.* www.gelightingsystems.com

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