



Ultonium Glass Lining Specification – SGL-09215

Glass lining specification for hot water applications.

Niles Steel Tank offers Ultonium, a premium glass lining for hot water applications with temperatures up to 180 degrees. Because of the special formulation of Ultonium, tanks only need to be cleaned by sand blasting to white metal before the porcelain is applied. An automatic articulating spray head capable of maintaining consistent thickness throughout the vessel applies the mixture of frit. Each vessel has a minimum of 10 mils of finished glass.

Niles Ultonium is tested under the following ASTM testing guidelines:

W-H-196 Test = 7.0 – 8.0 mg/in²

This test consists of exposing the enamel to a boiling (212°F) 4/10% solution of sodium Bicarbonate for (8) eight, (18) eighteen-hour cycles. Maximum weight loss after eight cycles is not to exceed 15 mg/in².

PEI T-21 Spot Acid Test = Class A

This test is used to determine enamel resistance to acids. The test area is examined for visible effects on the enamel and is graded from Class AA (no sign of etching) to Class D (etched surface).

Impact resistance = Class 4 to 5

The impact resistance test is used to determine the adhesive qualities of enamel to the substrate. The enamel is graded from Class 1 (worst) to Class 5 (best), fractured glass adhering solidly to the impact area. Class 3 is acceptable.

Hi-Pot Test = Less than 20

The HYPO test is a measurement of the continuity of the enamel coating (Spark Test). Fifty (50) sparks or fewer are the acceptable count for the water storage industry.

Thickness:	10 mils +/- 2 mils
Adhesion:	Class 4 to 5
Resistance:	Class A
Tank Sizes:	24" diameter to 84" diameter, up to 262"
Maximum Temperature:	180°F
Color:	Cobalt Blue
Anodes:	One or more magnesium anode rods based on gallon size.