

**GRANITEX™  
TECHNICAL  
DATA  
INFORMATION**

## Vortex® Granitex™ Glaze System

### Product Description:

The Vortex® Granitex™ Glaze is a two part, 1 to 1 ratio aliphatic urethane coating that has been hydrolysis tested and shown to be five to ten times **lower** in water absorption than conventional polyurethane liner systems. The Granitex™ Glaze has been subjected to a severe hydrolysis test that required immersion of the glaze in water at 90°C for a period of 28 days. Additional testing was performed for US military, passed specifications simulating about 10 years of service at 35°C at 95% relative humidity.

## Vortex® Granitex™ Glaze Testing Results

### Tensile Strength Retention and Water Absorption of Granitex™ Glaze compared to a conventional urethane material:

Product Tested	% of Tensile Strength Retention at 90°C Water for 14 days	% of Tensile Strength Retention at 90°C Water for 28 days	Water Absorption (% of Wt gain) 7 days
<b>Granitex™ Glaze</b>	<b>98</b>	<b>90</b>	<b>0.11</b>
Conventional Urethane Material	65	51	2.10

### Chlorinated Water Resistance of Granitex™ Glaze vs. standard urethane material:

Product Tested	Tensile Strength (%) Change	Elongation Change	Tear Strength	Hardness Change	Appearance Change
<b>Granitex™ Glaze</b>	<b>+2.7</b>	<b>0</b>	<b>5.6</b>	<b>0</b>	<b>Slight Discoloration</b>
Conventional Urethane Material	-12.8	+15	-4.3	-5.0	Blistering & Tacky

**Physical Properties:**

**Physical Properties of Granitex™ at Room Temperature (21°C):**

Product	Post Cure	Tensile (psi) ASTM D412	Elongation (%) ASTM D412	Tear Die C ASTM 2240	Hardness Shore D ASTM D2240	Taber Abrasion Wt Loss ASTM 4064 (mg/1000 cycles)
<b>Granitex™ Glaze</b>	<b>21°C at 12 hours</b>	<b>2314</b>	<b>295</b>	<b>302</b>	<b>42</b>	<b>40</b>

**Shelf Life and Storage:**

Six months in factory delivered unopened drums. Keep away from extreme heat, cold and moisture. Maintain at a proper storage temperature of 60°F - 100°F.

**Food Contact:**

Vortex® certifies, as the manufacturer of the Granitex™ Glaze that the Granitex™ Glaze meets the guidelines for approval for **FDA/USDA** applications for incidental food contact.

## Granitex™ Glaze Chemical Resistance:

Chemical	Result 82F (25°C)	Chemical	Result 82F (25°C)
Acetic Acid (100%)	C	NaCl/Water (10%)	R
Acetone	C	Nitric Acid (20%)	NR
Ammonium Hydroxide (50%)	RC	Phosphoric Acid (10%)	R
Benzene	C	Phosphoric Acid (50%)	NR
Brine-Saturated Water (310gl)	R	Potassium Hydroxide (10%)	R
Chlorinated Water	R	Potassium Hydroxide (20%)	R, Dis
Clorox® (10%) Water	R	Propylene Carbonate	RC
Diesel Fuel	RC	Skydrol®	C
Gasoline	RC	Sodium Hydroxide (25%)	R
Gasoline/5% MTBE	RC	Sodium Hydroxide (50%)	R, Dis
Gasoline/5% Methanol	RC	Sodium Hypochlorite (10%)	R
Hydrochloric Acid (20%)	R	Sodium Bicarbonate	R
Hydrofluoric Acid (10%)	NR	Stearic Acid	R
Hydraulic Fluid (oil)	RC	Sugar/Water	R
Isopropyl Alcohol	R	Sulfuric Acid (10%)	R
Lactic Acid	RC	Sulfuric Acid (>50%)	RC
MEK	RC	Toluene	R
Methanol	R	1,1,1-Trichlorethane	C
Methylene Chloride	C	Tri-sodium Phosphate	R
Mineral Spirits	RC	Vinegar Water (5%)	R
Motor Oil	R	Water	R
MTBE	C	Water (14 days @ 82°C)	RC
Muriatic Acid (10%)	R	Xylene	RC

R	=	Recommended
C	=	Conditional, wash down within 1 hour of contact to avoid cracking
RC	=	Recommended conditional (some effect, swelling, discoloration)
NR	=	Not Recommended
Dis	=	Discoloration

## **Granitex™ Glaze System**

The objective of the Granitex™ Floor Glaze system is to meet the needs of the above inquiries and suggestions. Vortex® has developed a new liner seal system: THE GRANITEX™ FLOOR GLAZE SYSTEM.

The Granitex™ floor glaze system is a two component high impact glaze/sealer that chemically fuses to the Vortex® liner. The Granitex™ floor glaze seals out the fine recesses of the liner while color coordinated ceramic fired angler granules provided enhanced slip resistance. The result is a surface that exhibits enhanced clean ability with improved predictable slip resistance while improving over all cosmetics of the floor.

## **The Granitex™ Floor Glaze System**

### **System Results:**

- Ability to produce a consistently predictable slip resistant surface from installation to installation
- Improved clean ability of liner surface
- Improved cosmetic appearance of floor
- Improved color coordinate ceramic fired slip resistance granules
- Increased chemical and stain resistance
- Moisture insensitivity
- Colorfast with exterior ultraviolet (uv) stability
- Compatible with both USDA and FDA specifications
- Ability to apply at low temperatures (40°F)
- Ability to return to surface to follow up on work (within 2 hours)
- Quick turnaround (within 24 hours after application)

**Granitex™ Granules** go great with the new Granitex™ Glaze now available to be a smart alternative to the KV40 Top Coat.

The Granitex™ Granules are ceramic fired beads that are extremely hard, harder than standard silica sand so it lasts much longer under hard foot traffic. The nicety of using the Granitex™ Granules is that being similar in color to your Vortex® material, as the top coat wears and some of the beads are exposed; they will be less noticeable as compared to the older Black Alumitex material that was used before.

The Granitex™ Granules are sold in pints ½ gallon and gallon lots. Less expensive and lighter in weight (which means cheaper to ship) than the older Alumitex. We typically average about 100 square feet per pint of granules.

The Granitex™ Granules come in 10 different colors. They are as follows:

<b>Granitex™ Granule Name</b>	<b>Associated Color from Color Chart</b>
Brown	450
Red	12RO/ARO
Grey	418
Blue	415
Black	403
White	454
Yellow	342
Tan	441
Beige	460
Blue Grey	423