

# GEOLINER®

## GEOPOLYMER MORTAR

**DESCRIPTION:** GeoLiner® geopolymer mortar is a fiber reinforced product designed to provide excellent corrosion resistance along with higher strengths and lower permeability than typical cementitious linings. This high performance product can be used for rehabilitation of manholes, wet wells, catch basins, large diameter pipes and tunnels, storm water culverts and WWTP containment structures. Formulated with highly amorphous alkali-activated precursor materials reacting through polycondensation, GeoLiner yields a final geopolymer structure.

### PHYSICAL PROPERTIES:

Compressive Strength ASTM C39/C109	28 days > 8,000 psi   55.1 MPa	Bond ASTM C882	28 days > 3,000 psi   20.7 MPa
Flexural Strength ASTM C78	28 days > 800 psi   5.5 MPa	Shrinkage ASTM C1090	28 days ≤ 0.02%
Tensile Strength ASTM C496	28 days > 900 psi   6.2 MPa	Freeze/Thaw ASTM C666	No visible damage after 300 cycles
Abrasion Resistance ASTM C1138	6 cycles @ 28 days Loss <1.0%	Sulfide Resistance ASTM C267	0% mass loss in 8 week sulfuric acid test @ PH 1.0 immersion
Rapid Chloride Ion Permeability ASTM C1202	< 250 coulombs Very Low	Modulus of Elasticity ASTM C469	28 days = 5.49x106 psi   37.8 GPa

**SURFACE PREPARATION:** Thoroughly clean and remove any loose or foreign materials including paints, dirt, oil, grease, surface coatings, laitance and any other bond-inhibiting material from surface to be coated, using minimum 3500 psi waterblast. Stop all active leaks. (Please refer to our Manhole Rehabilitation Specifications for product selections.) Surface should be Saturated Surface Dry (SSD) just prior to material application. Any standing water must be removed.

**APPLICATION:** Prepare surface to be lined by removing unsound concrete, dirt, dust, oil and other debris using high pressure (3,500 psi | 241.3 bar) water blasting. This will provide a clean, sound surface to allow for a good bond. Use approximately 0.5 to 0.6 gallons | 1.9 to 2.3 liters gallons of potable water per 60 lb. | 27.2 kg bag of GeoLiner geopolymer. First add water to mixer, start the mixer and add GeoLiner® geopolymer until mortar is completely mixed, approximately 5 minutes. Apply GeoLiner® geopolymer by low pressure spraying or the spin cast application process on horizontal or vertical surfaces to a monolithic minimum thickness of 1/2-inch | 12.7 mm for a protective layer to new infrastructure and 1.0-inch | 25.4 mm for structural restoration of existing infrastructure.

**COVERAGE:** YIELD One 60 lb. | 27.2 kg bag of GeoLiner® geopolymer will yield approximately 0.45 cu. ft. | 0.013 cu. m. and will cover 10.8 sq. ft. | 1.0 sq. m. per 1/2-inch | 12.7 mm thickness.

**PACKAGING:** Available in 60 lb. multiwall paper bags or 1,000 lb | 454 kg lb super sacks.

**STORAGE:** Keep product dry and above 50°F. Shelf life should be 1 year for unopened bags when stored accordingly.

**PRECAUTIONS** Use protective eye wear, cover exposed skin and use breathing protection. See SDS for specific instructions.



### ADVANTAGES:

- Great adhesion and cohesion
- Utilizes natural and recycled materials
- Very low carbon footprint
- Provides high level of corrosion resistance
- Restores structural integrity
- Excellent Bond to damp surfaces
- Apply up to several inches thick in one pass on horizontal or vertical structures
- Spincast or Spray Gun application



PO Box 25  
Wernersville, PA 19565  
(800) 356-9023  
info@parsonenvironmental.com  
www.parsonenvironmental.com