

Product Evaluation

RE: Review of GeoSpray Geopolymer Mortar

PRODUCT

GeoSpray Geopolymer Mortar is manufactured and distributed in Alberta by Milliken Infrastructure Solutions LLC located in Spartanburg, South Carolina, USA.

VENDOR CLAIMS AND INFORMATION

CLAIMS

GeoSpray Geopolymer Mortar is a high-performance fiber reinforced mortar specifically designed for structural rehabilitation. This high strength, ultra-low porosity material is made from natural mineral polymers and recycled industrial waste streams. The GeoSpray system is designed for use through multiple application techniques including pouring, placing, trowelling, spraying, or centrifugal casting.

DESCRIPTION

GeoSpray Geopolymer is a high-performance fiber reinforced mortar specifically designed for rehabilitation, primarily of pipes and culverts above 900mm in diameter, to create a new structural pipe within the existing structure. The material is designed for use through multiple application techniques including pouring, placing, troweling, spraying, or centrifugal casting.

POTENTIAL USAGE

Rehabilitation of pipes and culverts

STANDARDS

ASTM C 39 – Compressive Strength	ASTM C 78 – Flexural Strength
ASTM C 469 – Modulus of Elasticity	ASTM C 880 – Bond Strength of Concrete
ASTM C 807 – Set Time	ASTM C 666 – Freeze Thaw Durability
ASTM C 1090 – Shrinkage	ASTM C 496 – Tensile Strength
ASTM C 1138 – Abrasive Resistance	ASTM C 1202 – Rapid Chloride Ion Permeability

ALBERTA TRANSPORTATION COMMENTS

EXPERIENCE

Alberta Transportation has no experience with this product.

APPLICABLE STANDARDS

Alberta Transportation Specification 2.10.2.6, Mortar; 2.18.2.2 Cement Mortar; 5.16.2.7 Cement Mortar

RECOMMENDATIONS:

GeoSpray Geopolymer Mortar be listed as a Potential Product under Alberta Transportation’s Products List, Culverts – Culvert Liners – Proprietary based on the information provided. Final acceptance as a proven product will be based on field performance.

TRIAL PROJECTS

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