



In Reply Refer To:
MSHA:A&CC:PAR104275
Record File No. S36/0

June 12, 2014

Joe Royer, PhD
Milliken Infrastructure Solutions, LLC
1733 Majestic Drive, Suite 101
Lafayette, CO 80026

Dear Dr. Royer:

MSHA completed the review of your application for a suitability determination of the "GeoRoc™" Geopolymer Mortar as a mine sealant. Your application was dated November 27, 2013.

This mine sealant and the information provided meet the requirements of the voluntary Standard Application Procedure for Sealants Applied to Underground Ventilation Controls, ASAP5005.

The following requirements apply to this suitability:

1. Suitability Marking: The following must be permanently labeled on the mine sealant's container with letters at least 1/2" high, "Strength Enhancing Mine Sealant, Suitability Number MSHA-S36 - minimum applied thickness: 1/4 inch". Other marking methods may be used with prior approval of MSHA. In a timely manner, you must send a sample of this label to the Chief, Quality Assurance and Materials Testing Division at the letterhead address for examination.
2. You are obligated, as the manufacturer, to maintain the quality of the product to insure the requirements of this suitability are being met.
3. 30CFR§75.322 establishes standards for noxious gases in underground coal mines. During the installation and handling of sealants, concentrations of noxious or poisonous gases, other than carbon dioxide*, shall not exceed the threshold limit values (TLV) as specified and applied by the American Conference of Governmental Industrial Hygienists in "Threshold Limit Values for Substance in Workroom Air" (1972). Detectors or laboratory analysis of mine air samples shall be used to determine the concentrations of harmful, noxious, or poisonous gases. [* For carbon dioxide concentrations, see 30 CFR§75.321.]

4. It is the responsibility of the manufacturer to provide appropriate safety and health guidelines for handling products that may promote sensitization, cause skin irritation, or emit potentially harmful vapors.
5. The application of this mine sealant may require adjustment of an approved ventilation plan. (See 30CFR§75.370.)
6. Any change in product composition or in any other factors that may affect this suitability must not be made without prior authorization from MSHA.
7. We must be notified of any transfer of production or ownership of this product.
8. We have the right to revoke this suitability for cause at any time.

An invoice for the cost of processing this action will be forthcoming.

If you have any comments or questions relative to this letter, please refer them to David Creamer at 304-547-2085.

Sincerely,



Dennis L. Ferlich
Chief, Approval and Certification Center