

TITLE: APPLICATION PROCEDURE FOR ACCEPTANCE OF FLAME-RESISTANT SOLID PRODUCTS TAKEN INTO MINES

1.0 PURPOSE

This document establishes a voluntary Mine Safety and Health Administration (MSHA) Standard Application Procedure (SAP) for the flame testing, evaluation and acceptance of solid products taken into underground mines.

2.0 SCOPE

The Code of Federal Regulations (CFR), Title 30 contains mandatory regulations for flame resistant requirements of many products used in underground mines. However, there are numerous other products which may present similar fire hazards, but for which no specified test and/or regulation exist. As a result, this procedure provides for the testing and evaluation of these materials.

3.0 REFERENCES

- 3.1. Approval and Certification Center (A&CC) Cancellation Policy (APOL 1009).
- 3.2. Code of Federal Regulations (30 CFR), Part 7.44(a) (4) (i), Part 18.37(f) (1), Part 18.45(e) & Part 18, Section 18.65.

4.0 DEFINITIONS

- 4.1. Applicant: One that manufacturers or controls the assembly of a product.
- 4.2. Preauthorization notice: A statement by the applicant authorizing MSHA to expend a stated amount of money in evaluating / testing the applicant's product prior to the preparation and issuance of the MSHA fee estimate.

5.0 APPLICATION PROCEDURE

- 5.1. It is recommended that applicants contact the Approval and Certification Center to discuss acceptance and testing requirements prior to submitting an application.
- 5.2. An application requesting an acceptance should be sent to the following address:

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Chief
Approval and Certification Center
Mine Safety and Health Administration
RR #1 Box 251, Industrial Park Road
Triadelphia, West Virginia 26059

- 5.3. Applicants should refer to the application forms (Attachment 1 & 2) which illustrate the type of information required.
- 5.3.1. A 6 numeric digit code number (or less) **assigned by the applicant** (Application No.).
- 5.3.2. The company name, address, and telephone number of the applicant's representative responsible for answering any questions regarding the application.
- 5.3.3. A complete description of the product to include product name, description, potential use, toxicity information, quality control information, drawings, and samples for testing.
- 5.3.4. Complete formulation: Each ingredient must be specified by its chemical or generic name along with its percentage (weight) and tolerance. Organic ingredients should be named according to the current rules of the International Union of Pure and Applied Chemistry. Inorganic ingredients should be named according to the Chemical Abstract of the American Chemical Society. A prepolymer formulation which has been registered with MSHA may be identified by furnishing the MSHA assigned ID number. However, each additional ingredient the manufacturer adds to the chemical or generic name, along with its percentage (weight) and tolerance must be identified by chemical or generic name, along with its percentage (weight) and tolerance.
- 5.3.5. Information on the toxicity of the finished product including a Materials Safety Data Sheet.
- 5.3.6. A signed Certification Statement regarding toxicity as described in Attachment 1, Item 9.
- 5.3.7. The following information pertaining to the manufacturer's quality assurance procedures must be provided. As a minimum this should include:

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- a. Procurement procedures for the components or ingredients of the product,
 - b. Manufacturing practices to maintain the formulation,
 - c. Procedures for record keeping, such as test results, etc.
 - d. Critical Characteristics that will be flame tested or inspected to ensure that the finished product meets the flame resistance test requirements.
- 5.3.8. The application must be signed by an authorized representative of the company.
- 5.3.9. Product sales literature, if available, should be submitted.
- 5.3.10. The following products may be accepted under this Application Procedure:

- a. Air Hose,
- b. Belt skirt,
- c. Belt wipers,
- d. Chute liner,
- e. Hydraulic hose,
- f. Mine spray hose,
- g. Noise control/abatement,
- h. Pulley lagging (conveyor roller covers),
- i. Rock dust hose,
- j. Seat cushion material,
- k. Water hose, (not as fire hose),
- l. Impact bars,
- m. Roof/Rib Grid Material
- n. Hydraulic hose protective sleeve.

Note: Applications for the acceptance of Roof / Rib Grid Material must also complete Attachment 2.

This list is not totally inclusive. MSHA may evaluate and process other products, depending on the potential use and associated hazard. As such, the materials and required tests will be judged on a case by case basis.

- 5.3.11. Products which are required to be flame-resistant in accordance with 30 CFR and are evaluated under these procedures are as follows:

30 CFR Referenced Sections

- | | |
|---------------------------|------------------|
| a. Battery Box Insulation | 7.44 (a) (4) (i) |
| b. Cable Reel Insulation | 18.45 (e) |
| c. Packing Material | 18.37 (f) (1) |

5.4. Flammability Tests and Samples

- 5.4.1. Applicants must submit pre-cut, postpaid samples of the proper size and quantity (min. 4) as specified by MSHA. Generally, the size of the sample will be 1/2" wide by 6" long by the thickness of the material.
- 5.4.2. Applicants for acceptance of Roof / Rib Grid Material must submit a 4 ft. by 50 ft. roll for testing; shipping must be prepaid.
- 5.4.3. Acceptable flame resistance of a product will be determined by MSHA in accordance with one or more of the following flame test procedures:
- a. 30 CFR, Part 18, Section 18.65 (2G),
 - b. Standardized Small Scale Flammability Tests
 - c. 30 CFR, Part 7, Subpart B.

In instances where these flame test procedures may not be appropriate due to the physical characteristics or intended use of certain materials, another test may be specified by MSHA.

5.5. Application Processing

- 5.5.1. Upon receipt of a complete application, an estimate for the cost of processing the application ("CAP" letter) will be prepared and sent to the applicant. However, the applicant may submit a preauthorization notice with their applications to expedite processing and to eliminate the "CAP" letter. Contact the Approval and Certification Center (304-547-0400) for a cost estimate.
- 5.5.2. If an applicant chooses to cancel, fees will be charged for work performed up to the cancellation. If charges are less than the preauthorized amount, the lesser amount will be charged.

5.6. Product Acceptance

- 5.6.1. Upon successful testing and evaluation of the submitted product, MSHA will issue an acceptance number.
- 5.6.2. An accepted product shall be permanently and legibly labeled with the acceptance designation as instructed by MSHA. MSHA may permit alternate forms of labeling.
- 5.6.3. The manufacturer may submit a request for an "extension" of acceptance for a product, if minor changes in the product's construction, composition or use is contemplated. MSHA will determine if testing is required for these type modifications.
- 5.6.4. Companies other than the original manufacturer can market an accepted product under a different trade name or designation (private label). However, to maintain the validity of the acceptance, the original acceptance number issued by MSHA may not be changed. Any other markings on the product are at the discretion of the manufacturer or distributor. Additionally, MSHA must be promptly notified of such actions.
- 5.6.5. A product may be advertised as "accepted by MSHA" but such terms as "approved", "recommended" or "sanctioned" by MSHA must not be used.
- 5.6.6. All construction details, formulations and test results, or other information designated as proprietary and/or confidential, will be regarded as such with the exception of the company name, address, phone number product name, and intended product use.

5.7. Product Failure

Should the product fail the testing, the application will be cancelled and any accrued charges billed.

5.8. Notification of Discrepancy

The applicant will be notified of any problems (discrepancies) that require correction with the submitted documents before the acceptance can be issued. Discrepancies will be resolved in accordance with A&CC's cancellation policy (APOL 1009).

5.9. Post Acceptance Audits

As part of the acceptance program, MSHA reserves the right to request samples from the manufacturers for testing at no cost to MSHA for post-acceptance audit. Samples of each product shall not be requested more than one a year except for cause.

5.10. Revocation

MSHA may revoke any acceptance and require a products removal from underground mines should it be found to be unsafe, create a health hazard, or otherwise not be in conformance with the acceptance criteria.

Attachment 1

Flame Resistant Acceptance of Solid Products - Application Form

Date _____

1. Company Name

Address: _____
Telephone No. (Area Code) _____ FAX No. _____
Company Representative _____

2. Company Assigned Application No. (six digits or less) _____

3. Product Description (Include all variations) _____

a. Trade Name: _____

b. Style, Code No., (or other description): _____

c. Potential use: _____

4.	Formulation Ingredient	% by Weight	Tolerance (+ or - Percent)
	_____	_____	_____
	_____	_____	_____
	_____	_____	_____
	_____	_____	_____
	_____	_____	_____
	_____	_____	_____
	_____	_____	_____

5. Samples - were test samples sent, indicate: Yes _____ or No _____

6. Toxicity: For all products a statement must be provided that "the product in its final form and under normal use does not present a toxicity hazard to miners."

7. A Materials Safety Data Sheet (MSDS) is required for the final end product, if one has been prepared in accordance with 29 CFR 1200, or for the hazardous components used to manufacture the final end product. Attach quality assurance information and sales literature.

8. Certification Statement

9. Each applicant for acceptance shall provide a certification statement which states:

The product in its final form does not present a toxic hazard under "normal use" conditions.

Signature of authorized company official.

Attachment 2

Flame Resistant- Roof / Rib Material Specification Sheet

1. Provide a typical drawing and specify all dimensions of the roof/rib product.
2. Specify (on the drawing) the location where the product will be marked with the MSHA Acceptance Number.

a. Trade Names				
b. Style, Code No. or other designation				
c. Color				
d. Thickness (mil)				
e. Weight (oz/sq. yd.)				
f. Aperture Specifications				
1. Aperture Size (length & width)				
2. Number of apertures (per liner ft./yd.) parallel to the product's length				
3. Number of apertures (per liner ft./yd.) parallel to the product's width				
4. Width of the fabric band at the product's edge				
5. Width of the fabric parallel to the product's length				
6. Width of the fabric parallel to the product's width				