

TITLE: Application Procedure for Approval of Flame-Resistant Brattice Cloth and Ventilation Tubing

MSHA Mine Safety and Health Administration, Approval & Certification Center

1.0 PURPOSE

This document establishes the Mine Safety and Health Administration's (MSHA) Standard Application Procedure (SAP) for the Approval of Flame-Resistant Brattice Cloth and Ventilation Tubing under 30 CFR, Part 7, Subparts A & B. Its use is voluntary.

2.0 SCOPE

These procedures apply to all applications for Approval of Flame-Resistant Brattice Cloth and Ventilation Tubing according to the Code of Federal Regulations, Title 30, Part 7, Subparts A & B.

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, Subparts A & B.

4.0 DEFINITIONS

- 4.1. Brattice Cloth Family - a product which is manufactured by using one type of film (thickness and weight may vary), one type of scrim (thickness and denier may vary), and one type of adhesive (applied weight may vary).
- 4.2. Preauthorization - an agreement in the application, that confirms and agrees to MSHA's general cost estimate to evaluate the application.
- 4.3. Ventilation Tubing Family - a product that is manufactured by using one type of base material and one type of resin. The products may differ in diameter, length, configuration, or average wall thickness.

5.0 APPLICATION PROCEDURE

- 5.1. It is recommended that applicants contact the Quality Assurance & Materials Safety Division at 304-547-0400 to discuss approval and testing requirements prior to submitting an application.

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- 5.2. The application requesting an approval or extension of approval should be sent to the following address:

MSHA, Approval and Certification Center
Attention: IPSO
765 Technology Drive
Triadelphia, West Virginia 26059

- a. FAX to: 304-547-2084
- b. Email Submittals:

Application letters, specifications, drawings, and other supporting documentation should be sent to zzMSHA-IPSO@DOL.gov

- c. FTP Submittals:

Application letters and supporting documentation can be placed on the MSHA FTP server, mfgr.msha.gov. Please call the Information Processing Services Office (IPSO) at 304-547-0400 to establish your user account.

- 5.3. Applicants must conduct their own flame test or have it conducted by a Part 7B Flame Test Laboratory. MSHA does not conduct approval testing for brattice cloth and ventilation tubing, although MSHA reserves the right to witness the flame tests (see Section 5.7.1). A list of participating Part 7 testing laboratories is available on Attachment 1. MSHA does not “approve” or endorse these laboratories but lists them for the convenience of the applicant.

5.4. Brattice Cloth Applications

- 5.4.1. Each application for approval of a product must be in the English Language and include the following information on the attached application forms (Attachment 2A, Item 1).

- a. Company name
- b. Address
- c. Telephone & FAX number of company representative

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d. Company representative's name

- 5.4.2. A 6 digit or less numeric code (Application Code) assigned by the applicant (Attachment 2A, Item 2).
- 5.4.3. The place and date of flame testing and details on the specific samples that will be tested (Attachment 2A, Item 3).
- 5.4.4. A flame test report from a Part 7B flame test laboratory must be provided. The flame test report must include all information listed on Attachment 5 (Attachment 2A, Item 4).
- 5.4.5. A 12 inch by 12 inch (approximate size) sample of each brattice cloth should be provided with the application (Attachment 2A, Item 5).
- 5.4.6. Certification Statements
 - 5.4.6.1. Signed Certification Statements relating to the Technical requirements specified in 30 CFR, Subpart 7B, Section 7.24 (Attachment 2A, Item 6a).
 - 5.4.6.2. Signed Certification Statements relating to the Quality Assurance requirements specified in 30 CFR, Subpart 7A, Section 7.7 (Attachment 2A, Item 6b).
 - 5.4.6.3. Signed Certification Statement certifying that the product meets the performance portion of the technical requirements as specified in 30 CFR, Subpart B, Section 7.24 (Attachment 2A, Item 6c).
- 5.4.7. A complete description of the product including: trade name, product designations, color, type, weight, film, scrim, adhesive, suppliers, supplier's ID numbers, thickness, weight, percentage of finished product by weight for the film, scrim, and adhesive (Attachment 2B).

5.5. Ventilation Tubing Applications

- 5.5.1. Each application for approval of a product must be in the English Language and include the following information on the attached application forms (Attachment 3A, Item 1).

a. Company name

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- b. Address
 - c. Telephone & FAX number of company representative
 - d. Company representative's name
- 5.5.2. A 6 digit or less numeric code (Application Code) assigned by the applicant (Attachment 3A, Item 2).
- 5.5.3. The location, date and time for flame testing and the details relative to the samples to be tested (Attachment 3A, Item 3)
- 5.5.4. A copy of the laboratory's flame test report must be provided (Attachment 3A, Item 4).
- 5.5.5. Certification Statements
- 5.5.5.1. Signed Certification Statements relating to the Technical requirements specified in 30 CFR, Subpart 7B, Section 7.24 (Attachment 3A, Item 5a).
 - 5.5.5.2. Signed Certification Statements relating to the Quality Assurance requirements specified in 30 CFR, Subpart 7A, Section 7.7 (Attachment 3A, Item 5b).
 - 5.5.5.3. Signed Certification Statement certifying that the product meets the performance portion of the Technical requirements as specified in 30 CFR, Subpart B, Section 7.24 (Attachment 3A, Item 5c).
- 5.5.6. A complete description of the tubing to include trade name, product designations, color, type, inside diameter, wall thickness, suspension system, base material, resin, flame retardants, suppliers, supplier's ID numbers, and percentage of finished product by weight for the base material, resin, film, and flame retardants (Attachment 3B).
- 5.6. Extensions of Approval - Brattice Cloth & Ventilation Tubing
- 5.6.1. Any change in the approved product from the documentation on file at MSHA that affects the technical requirements (described in Part 7.24) must be submitted to MSHA for approval prior to implementing the change (Attachment 4A and 4B).

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- 5.6.2. Each application for approval of a product must be in the English Language and include the following information on the attached application forms (Attachment 4A, Item 1).
- a. Company name
 - b. Address
 - c. Telephone & FAX number of company representative
 - d. Company representative's name
- 5.6.3. A 6 digit or less numeric code (Application Code) assigned by the applicant (Attachment 4A, Item 2).
- 5.6.4. The MSHA-assigned approval number for the product for which the extension is being requested (Attachment 4A, Item 3).
- 5.6.5. A brief description of the proposed change to the previously approved product (Attachment 4A, Item 4).
- 5.6.6. A statement as to whether, in the applicant's opinion, the change requires product testing. If testing is not proposed, the applicant shall explain the reasons for not testing (Attachment 4A, Item 5).
- 5.6.7. Drawings and specifications that show the change in detail (Attachment 4A, Item 6).
- 5.6.8. The place and date for product testing, if testing is required (Attachment 4A, Item 7).
- 5.6.9. A flame test report from the test laboratory must be provided to MSHA when tests are completed (Attachment 4B, Item 8, and Attachment 5).
- 5.6.10. Certification Statements
- 5.6.10.1. Signed Certification Statements relating to the Technical requirements specified in 30 CFR, Subpart 7B, Section 7.24 (Attachment 4B – Item 9a).

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- 5.6.10.2. Signed Certification Statements relating to the Quality Assurance requirements specified in 30 CFR, Subpart 7A, Section 7.7 (Attachment 4B - Item 9b).
- 5.6.10.3. Signed Certification Statement certifying that the product meets the performance portion of the technical requirements as specified in 30 CFR, Subpart B, Section 7.24 (Attachment 4B - Item 9c).

5.7. Application Processing

- 5.7.1. Upon receipt of a complete application, an estimate for the administrative cost of processing the application (cap letter), that includes the cost for the *time* spent to travel and witness the product testing, will be prepared and sent to the applicant. *The cost of the travel and lodging involved with witnessing the test is a separate cost and will be charged to the applicant.*

The applicant may preauthorize the estimate in order to eliminate the “cap” letter. Check with MSHA personnel for the present amount.

- 5.7.2. Upon receipt of the company agreement to the cap estimate (or *preauthorization*), MSHA will schedule the trip for the witnessing of the flame tests at the earliest possible convenience of all parties. MSHA's policy is to witness the testing of all first time Part 7 applicants. MSHA will also witness testing at “new” first time laboratories, or may witness tests at laboratories who in the past have demonstrated difficulties in conducting the tests according to the testing standards. MSHA reserves the right to witness any testing.
- 5.7.3. The applicant will be notified of the products required for approval testing. When a large family of products is submitted for approval, it is not necessary to test every product. MSHA's policy is to require testing of the lightest weight and heaviest weight brattice products within each family.
- 5.7.4. Upon successful testing of the product(s) and receipt of laboratory test data report(s) with certifications, MSHA will prepare an approval letter for the applicant.
- 5.7.5. If a product should fail the test, one retest will be allowed based on a written request by the applicant. The request for retest must provide the

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justification for such action, such as improvement in product formulation and amendment of original application. Based upon the justification and at MSHA's discretion, the retest may consist of both sizes that were originally tested; otherwise, only the specific size that passed the test will be issued an approval. MSHA may waive witnessing of retests.

5.8. Notification of Discrepancy

The applicant will be notified of any discrepancies that need to be corrected. Discrepancies will be resolved in accordance with the A&CC's cancellation policy (APOL 1009).

Attachment 1

Part B Flame Test Laboratories for Brattice Cloth and Ventilation Tubing

(Not endorsed or Approved by MSHA, but listed as a convenience)

Glen Raven Technical Fabrics, LLC
1831 N. Park Avenue
Glen Raven, NC 27217-1137
Telephone: 336-221-2104

ABC Corporation
P.O. Box 77,
Warsaw, IN 46580
Telephone: 800-426-0921

Schauenburg Flexadux Corp.
2233 Sanford Drive
Grand Junction, CO 81505
Telephone: 970-245-9400

Bluefield Manufacturing, Inc.
P.O. Box 1010
Industrial Park
Bluefield, VA 24605
Telephone: 800-445-4461

Attachment 2A

BRATTICE CLOTH APPLICATION FORM

Date _____

1. Company Name: _____
Address: _____

Telephone No. (Area Code) _____ FAX No. _____

Company Representative: _____

2. Company Identification Code Number: _____

3. Provide the proposed location, date & time of 30 CFR § 7.27 testing (if applicable).

4. A flame test report from the Part 7B flame test laboratory is attached: Yes ___ No ___

5. A 12 inch by 12 inch (approximate size) sample of each brattice cloth should be provided with the application: Yes ___ No ___ (If No, attach explanation).

6. Each application shall include certification statements as described in Part 7, Subpart A, Section 7.3(f).

a. We _____ certify that the product meets the design portion of the
(insert name)
Technical requirements as specified in 30CFR, Subpart 7B, Section 7.24.

b. We _____ certify that we will perform the Quality Assurance
(insert name)
requirements of 30CFR, Subpart A, Section 7.7.

Signature of Authorized Company Representative

c. We _____ certify that the brattice cloth meets the
(insert name)
performance requirements of 30 CFR, Subpart B, Section 7.27 as specified in Subpart 7B, Section 7.24.

Signature of Authorized Company Representative

Attachment 2B

Product Description (Include all variations):

Trade Names				
Style, Code No. or other designation				
Color				
Type of Brattice (jute, cotton, plastic, etc.)				
1. Thickness				
2. Weight (oz./sq. yd.)				
Type of Film				
1. Film Supplier				
2. Supplier's Stock #				
3. Thickness (mil)				
4. Weight (oz./sq. yd)				
5. Percent of finished product by weight				
Type of Scrim				
1. Scrim Supplier				
2. Supplier's Stock #				
3. Weight (oz./sq. yd)				
4. Threads/inch				
5. Denier				
6. Percent of finished product by weight				
Type of Adhesive				
1. Adhesive Supplier				
2. Suppliers Stock #				
3. Percent of finished product by weight				

Attachment No. 3A

VENTILATION TUBING APPLICATION FORM

Date _____

1. Company Name: _____
Address: _____

Telephone No. (Area Code) _____ FAX No. _____

Company Representative: _____

2. Company Identification Code Number: _____

3. Provide the proposed location, date & time of 30 CFR § 7.28 testing (if applicable).

4. A copy of the laboratory's flame test report is attached: Yes ___ No ___
(If No, attach explanation).

5. Each application shall include certification statements as described in Part 7, Subpart A, Section 7.3(f).

a. We _____ certify that the product meets the design portion of the
(insert name)
Technical requirements as specified in 30CFR, Subpart 7B, Section 7.24.

b. We _____ certify that we will perform the Quality Assurance
(insert name)
requirements of 30CFR, Subpart A, Section 7.7.

Signature of Authorized Company Representative

c. We _____ certify that the brattice cloth meets the
(insert name)
performance requirements of 30 CFR, Subpart B, Section 7.27 as specified in Subpart 7B, Section 7.24.

Signature of Authorized Company Representative

Attachment No. 3B

VENTILATION TUBING APPLICATION FORM

Date _____

3. Product Description (Include all variations)

Trade Name(s)	
Style, Code No., or other designation	
Color	
Inside diameter(s)	
Length(s)	
Average wall thickness in inches (minimum+ maximum)	
Configuration(s) (round, oval, etc.)	
Base material 1. Type (fiberglass, vinyl, etc.) 2. Supplier 3. Supplier's stock # 4. Percent finished product by weight	_____ _____ _____ _____
Resin, coating, etc. 1. Type (epoxy, etc.) 2. Supplier 3. Supplier's stock # 4. Percent finished product by weight	_____ _____ _____ _____
Other components (steel, wire, etc.) 1. Type 2. Supplier 3. Supplier's stock # 4. Percent finished product by weight	_____ _____ _____ _____

Attachment No. 4A

APPLICATION FORM
EXTENSIONS OF APPROVAL
BRATTICE CLOTH & VENTILATION TUBING

Date _____

1. Company Name: _____
Address: _____

Telephone No. (Area Code) _____ FAX No. _____

Company Representative: _____

2. Company Identification Code Number: _____

3. The MSHA-assigned approval number for the product for which the extension is being requested:

MSHA Approval No. - Brattice: _____

MSHA Approval No. - Ventilation Tubing: _____

4. Provide a brief description of the proposed change to the previously approved product.

5. Provide a statement as to whether, in the applicant's opinion, the change requires product testing.

a. If Yes, provide the proposed location, date & time of testing.

b. If No, explain the reasons for not testing;

6. Drawings and specifications are attached which show the change in detail:
Yes ___ No ___ (If No, attach explanation).

7. Provide the proposed location, date & time of testing (if applicable).

Attachment No. 4B

8. A flame test report from the Part 7B flame test laboratory is attached:
Yes ___ No ___

9. Each application shall include certification statements as described in Part 7, Subpart A, Section 7.3(f).

a. We _____ certify that the product meets the
(insert name)
design portion of the Technical requirements as specified in 30CFR, Subpart 7B, Section 7.24.

b. We _____ certify that we will perform the
(insert name)
Quality Assurance requirements of 30CFR, Subpart A, Section 7.7.

Signature of Authorized Company Representative

c. We _____ [insert name] certify that the cable
(insert name)
meets the performance requirements of 30 CFR, Subpart B, Section 7.27 as specified in Subpart 7B, Section 7.24.

Signature of Authorized Company Representative

Attachment No. 5

Required Test Report Information

1. Test Procedure
2. Equipment used, including calibration dates
3. Dates of brattice cloth conditioning

Sample Test Form

GENERAL INFORMATION

Product Manufacturer _____, MSHA PAR # _____ Date _____
 Testing Laboratory _____, Tests Conducted By _____
 Product Trade Name _____, Sample Size _____
 Air Flow @ 0 FPM _____, Air Flow @ 125 FPM _____, Suspended Height _____ inches
 Burner Height 12 inches, Ignition Time: Brattice 25 seconds, Tubing 60 seconds, Video Taped Y/N _____
 Brattice: Scrim Count _____, Weight (oz./sq. Yd.) _____, Color _____
 Tubing: Wall thickness _____, Color _____

TESTS RESULTS

0 FPM

Sample #	Propagation (inches)	Burn Time - Suspended (min./sec.)	Burn Time -Floor (min./sec.)	Total Burn Time (min./sec.)
1				
2				
3				
				Average:

125 FPM

1				
2				
3				
				Average:

COMMENTS _____

Signed _____ Date _____