



REPLY TO: EAST WALPOLE, MA 02032
TEL: 617-668-2500

September 15, 1978

Mr. H. B. Davies
Nicolet Inc.
Ambler, PA 19002

Dear Mr. Davies:

I was sorry to learn that you did not receive the specifications for Perforated No. 15 Asphalt Saturated Asbestos Felt and Reinforced Asbestos Flashing Sheet that were mailed on August 18th.

As I indicated during your visit, the Perforated No. 15 Asphalt Saturated Asbestos Felt should meet ASTM D-250, Type I and carry an Underwriters' Type 15 Built-Up label. The roll area would be as specified on the purchase order. The location of the laying lines would be 2", 8 1/2", 11 1/4", 17", 19", 24 3/4", 27 1/2", and 34" from either edge.

Inasmuch as there is no ASTM specification for Reinforced Asbestos Flashing Sheet, I am enclosing a tentative specification for this product. As you know, a specification for Reinforced Flashing Felt is being worked on in ASTM Committee D-8. When an ASTM specification becomes available we would expect that this would take the place of the enclosed tentative specification.

If you have any questions on the above, please do not hesitate to call.

Very truly yours,

Carroll A. Homan
Quality Control Manager

CAH/rp
Enc.

cc: W. E. Smith

TENTATIVE SPECIFICATION

Reinforced Asbestos Flashing Sheet

1. Material

- 1.1 The reinforced flashing sheet is composed of asbestos roofing felt reinforced with woven glass fiber, impregnated with asphalt, coated on both sides with an asphaltic coating compounded with a fine mineral stabilizer substantially insoluble in water, and surfaced on both sides with fine mineral surfacing.

2. Physical Requirements

- 2.1 The reinforced flashing sheet shall conform to the physical properties prescribed in Table I.
- 2.2 Pliability at 77°F. - All 10 strips out of 10 shall not crack when tested in accordance with ASTM Standard D 228.
- 2.3 Behavior on Heating - There shall be no more than 1.5% volatile loss, and there shall be no flowing, sagging, blistering, or absorption of asphalt coating when tested in accordance with ASTM Standard D 228.
- 2.4 The finished product shall not crack at any temperature above 50°F. nor be so sticky at any temperature below 140°F. as to cause tearing or material damage upon being unrolled.

3. Dimensions & Weights

- 3.1 The roll width shall be 36" $\pm 1/4$ ".
- 3.2 The roll length shall be 36 ft. minimum.
- 3.3 The weights shall be as shown in Table II.

4. Workmanship, Finish, & Appearance

- 4.1 The asbestos felt shall be completely and uniformly impregnated and shall show no unimpregnated spots on any point upon cutting 2" wide strips at random across the entire sheet and splitting them open for their full length.
- 4.2 The coating shall be applied uniformly to both sides of the sheet and up to the edge of the sheet in a continuous, unbroken film.
- 4.3 Both sides shall be surfaced with fine mineral surfacing or any suitable material to prevent the flashing from sticking in the package. Coarse mica shall not be used on either surface.
- 4.4 If soap or other materials are used on the surface, the amount applied shall not be so great as to hinder proper adhesion between the plies.
- 4.5 The finished material shall be free of visible external defects such as holes, ragged or untrue edges, breaks, cracks, tears, protuberances, and indentations.

TABLE I

Physical Requirements

<u>Property</u>	<u>Felt Direction</u>	
Breaking Strength 50% RH, lbs./inch	Machine	110 lbs. minimum
	Across	75 lbs. "
Ave. Tear Strength, g	Machine	1300 minimum
	Across	2000 "

TABLE II

Weight Requirements

Minimum Weight, lbs./100 sq. ft.

Dry Asbestos Felt incl. scrim	12.0 lbs.
Saturant(a)	4.8 "
Weather side coating, filler, and surfacing	15.0 "
Back coating, filler, and surfacing	10.0 "
Total dry, net	45.0 lbs.

(a) The weight of the saturant shall be not less than 0.4 times the weight of the dry felt.

CAH/rp
8/18/78



REPLY TO: EAST WALPOLE, MA 02032
TEL: 617-668-2500

August 18, 1978

Mr. H. B. Davies
Marketing Manager
Norristown Division
Ford and Washington
Norristown, PA 19401

Dear Mr. Davies:

At the time of your recent visit you requested that I send you specifications for both Perforated No. 15 Asphalt Saturated Asbestos Felt and Reinforced Asbestos Flashing Sheet.

As I indicated during your visit, the Perforated No. 15 Asphalt Saturated Asbestos Felt should meet ASTM D 250 Type I and carry an Underwriters' Type 15 Built-Up Label. The roll area would be as specified on the purchase order. The location of the laying lines would be 2", 8 1/2", 11 1/4", 17", 19", 24 3/4", 27 1/2", and 34" from either edge.

Inasmuch as there is no ASTM specification for Reinforced Asbestos Flashing Sheet, I am enclosing a tentative specification for this product. As you know, a specification for Reinforced Flashing Felt is being worked on in ASTM Committee D-8. When an ASTM specification becomes available we would expect that this would take the place of the enclosed tentative specification.

If you have any questions on the above, please do not hesitate to call.

Very truly yours,

Carroll A. Homan
Quality Control Manager

CAH/rp
Enc.

cc: W. E. Smith

CORPORATE HEADQUARTERS: EAST WALPOLE, MA • MILLS: EAST WALPOLE, MA • NORWOOD, MA •
PHILLIPSDALE, RI • CHICAGO, IL • SHREVEPORT, LA • CHARLESTON, SC • PERTH AMBOY, NJ • SAN MATEO, CA • BARTSTOWN, KY •

BIRD 011726



MEMORANDUM

To W.E.Smith BBA C. Homan BBQ J.A. Hixon BB
From W.S. Kimball BT
Date 11/2/77
Subject NICOLET - HAMILTON

Nicolet announced Monday, 10/31/77 that they are closing the Hamilton plant and moving operations within 3 months to Norristown, Pa.

That puts our purchase program for Asphalt Saturated Asbestos Felt on the back burner for awhile. (maybe forever)

Tom Toerner, as of today, believes they can do the same thing for us in Norristown as was planned in Hamilton.

We will have something more definitive in a couple of weeks.

MUSK



HAMILTON DIVISION
NICOLET, INC.
P.O. BOX 777
HAMILTON, OHIO 45012

PHONE (513) 893-4761
TELEX: 21 - 4107

October 4, 1977

Mr. James Toohey
Quality Control Department
Bird & Son
East Walpole, Massachusetts 02032

Dear Jim:

In accordance with our telephone conversation, enclosed are four (4) - 3" x 5" samples that we would appreciate your giving us results of your extraction tests. We are having adjacent samples tested in our lab to see where we stand in correlation of tests.

Reason for this, is that you showed a 38.1% average saturation based on four (4) sample rolls we sent you. Our original saturation tests were "way off" because we had taken all test samples from the middle of the roll.

We then went back to our master roll and took further tests from various locations on the roll; had two (2) testers run them and came up with 41.3% and 43.9% saturation.

We are also sending you another two (2) rolls - perforated for your evaluation.

We certainly appreciate your help in getting us squared away in furnishing a quality Asbestos Roofing Product.

Yours truly,

Thomas J. Toerner
Marketing Manager -
Cellulos Products
Hamilton Division

TJT/dd

encls.

cc: Mr. Carroll Homan ✓
Quality Control - Bird

Mr. Ed Stoffregen
Quality Control - Nicolet



HAMILTON DIVISION
NICOLET, INC.
P.O. BOX 777
HAMILTON, OHIO 45012

PHONE (513) 893-4761

TELEX: 21 - 4107

September 2, 1977

Mr. Bill Smith
Merchandising Manager
Bird and Son
East Walpole, Massachusetts 02032

Dear Bill,

It was certainly enjoyable meeting you and your fellow workers yesterday in East Walpole.

Since our meeting I have contacted Underwriter's Laboratory in regard to what has to be done to have your label #1177 applied to material that we manufacture. They have advised that they could just add another location which is designated by letter to your number.

The cost of adding this is approximately \$600.00 and the request has to be initiated by you. We are in position to set up a time with Underwriter's Laboratory for inspection as soon as this can be worked out. I talked to Carroll Homan today on the telephone in this regard.

We are willing to absorb this cost on the basis of reducing our price to you by 10¢ a roll (\$12.35 roll to \$12.25 roll) on the first 6,000 rolls.

Samples of our material, asphalt saturated perforated and un-perforated - two rolls of each - will be shipped to Carroll Homan, Dock #7, East Walpole.

The terms, which Mr. Kimball questioned in your office, will have to remain NET-30 days. The pricing as it stands presently is 26.3% off of current list price. I am proposing to you that this percentage discount remain constant from list price. Price increases would become effective two months after effective date of market list prices. I hope this will be agreeable with you.

HAMILTON DIVISION
NICOLET, INC.

Page 2
September 2, 1977

Thanks for your hospitality during my visit, and I hope to see you again in the near future.

Yours truly,

Thomas J. Toerner /dk

Thomas J. Toerner, Marketing Manager
Cellulose Products - Hamilton Division

TJT:dk

cc: Mr. Carroll Homan, Corporate Quality Control ✓
Mr. Bill Kimball, Director of Purchasing

TENTATIVE SPECIFICATION FOR
REINFORCED FLASHING FELT

4th
2nd Draft
27 Jan 78
12 Apr 78

1. Scope

This specification covers reinforced flashing felts composed of asbestos roofing felt impregnated with asphalt, reinforced with woven glass fiber or cotton cloth, coated on both sides with asphalt, and surfaced on both sides with a fine mineral surfacing; it is used as an element in the construction of composition flashing in roofing and waterproofing.

2. Applicable Documents

2.1 ASTM Standards

- D95 - Test for Water in Petroleum Products and Bituminous Materials by Distillation
- D146 - Sampling and Testing of Felted and Woven Fabrics Saturated with Bituminous Substances for use in Waterproofing and Roofing
- D228 - Testing Asphalt Roll Roofing, Cap Sheets, & Shingles
- D250 - Specification for Asphalt Saturated Asbestos Felts for Waterproofing and Roofing
- D689 - Test for the Internal Tearing Resistance of Paper
- D781 - Test for the Puncture and Stiffness of Paper Board, Corrugated and Solid Fiber-board
- D1079 - Definitions of Terms Relating to Roofing, Waterproofing, and Bituminous Materials.
- D2822 - Specification for Asphalt Roof Cement

3. Significance and Use

3.1 Reinforced flashing felt is an element used in the construction of built-up flashing for roofing and waterproofing systems.

3.2 All of the following standards are quality-control standards; they have been developed through use and experience. None of the individual standards are intended to measure total performance directly. However, when a product meets all of these standards, it should be suitable for use in built-up flashing systems if properly installed using properly designed flashing details.

4. Materials and Manufacture

4.1 ^{Reinforced} Type 1 Combination Flashing Felt is reinforced with a woven glass fiber scrim. In the process of manufacture, a single thickness of asbestos felt is impregnated with asphalt, then coated on both sides with an asphaltic coating which may be compounded with a fine mineral stabilizer substantially insoluble in water, and surfaced on both sides with a fine mineral surfacing. If the glass scrim is not integral with the felt, it ^{will} may be added or laminated to an unreinforced felt with hot asphalt coating. The asbestos felt shall comply with all the requirements for ^{Type I} #15 type (plain) in ASTM D-250.

4.2 ^{Reinforced} Type 2 Combination Flashing Felt is reinforced with cotton fabric. The fabric is laminated to an asphalt impregnated asbestos felt with hot asphalt, then the laminate is coated on both sides with asphalt coating which may be compounded with a fine mineral stabilizer substantially insoluble in water, and surfaced on both sides with a fine mineral surfacing. The asbestos felt shall comply with all the requirements for ^{Type I} #15 type (plain) in ASTM D-250.

5. Physical Requirements

5.1 ^{reinforced} The combination flashing felt shall conform to the physical properties prescribed in Table I.

5.2 Pliability of 25°C (77°F) — all 10 strips out of 10 shall not crack when tested in accordance with ^{Standard} Section 16 of Method D228.

5.3 Behavior on Heating to ~~80°C (176°F)~~ ^{Standard} — there shall be no more than 1.5% volatile loss, and there should be no flowing, sagging, blistering, or absorption of the asphalt coating, when tested in accordance with ^{Standard} Section 17 of Method D228.

5.4 The finished product shall not crack at any temperature above 10°C (50°F) nor be so sticky at any temperature below 60°C (140°F) as to cause tearing or material damage upon being unrolled.

5.5 The finished product shall show no slumping or blistering ^{of the top coating or sliding} after being placed on a 3 mm thick trowel coating of roof cement (ASTM D2822) on a glass or metal plate set in an oven at 45° slope for 72 hours at 60°C (140°F).

6. Dimensions and Weights ^{Mass}

6.1 ^{reinforced} The combination flashing felt shall be put up in rolls and the width shall be as agreed between the purchaser and the seller.

- 6.2 Width — the width shall not vary more than $\pm 0.7\%$.
- 6.3 Area — the area shall not be less than the area shown on the label.
- 6.4 Weights — the weights shall be in accord with the weights shown on Table 2.
mass masses masses

7. Workmanship, Finish, and Appearance

7.1 The asbestos felt shall be completely and uniformly impregnated and shall show no unimpregnated spots ^{at} in any point upon cutting 50 mm (2 inch) wide strips at random across the entire sheet ^{and then} splitting it open for its full length.

7.2 The coating shall be applied uniformly to both sides of the sheet and up to the edges of the sheet in a continuous, unbroken film. ~~The coating may be smooth or finely veined, but not coarsely veined.~~

7.3 Both sides shall be surfaced with fine mineral surfacing or with any suitable material to prevent the flashing from sticking in the package. Coarse mica shall not be used on either surface.

7.4 If soap or other materials are used on the surface, the amount applied shall not be so great as to hinder proper adhesion between the plies.

7.5 The finished material shall be free of visible external defects such as holes, ragged or untrue edges, breaks, cracks, tears, protuberances, and indentations.

8. Sample and Methods of Test

8.1 Sample the material and determine the properties enumerated in the specification in accordance with Method D228.

8.2 Determine the breaking strengths in accordance with ^{standard} Method D146.

8.3 Determine the moisture content by cutting a 100 gm sample representative of the material in the roll to approximately 6 mm (1/4 inch) squares and employing ^{standard} Method D95 apparatus as in Figure 1, water trap as in Figure 2, reporting results to the nearest 0.1%.

9. Inspection

Inspection of the material shall be made as agreed upon by the Purchaser and the Seller as part of the purchase contract.

10. Rejection and Rehearing

Failure to conform to any one of the requirements in this specification shall constitute grounds for rejection. In cases of rejection, the seller shall have the right to reinspect the shipment and resubmit the lot after removal of those packages not conforming to the specified requirements.

11. Packing and Marking

11.1 The area per roll and packaging shall be as agreed upon by the purchaser and the seller.

11.2 Each roll shall be plainly marked with the name (including the word "asphalt") and brand of the manufacturer and the minimum roll area.

11.3 The weather side of the felt shall be marked if one side is intended for exposure; if unmarked, either side may be installed as the weather side.

TABLE I

Physical requirements of
REINFORCED FLASHING FELTS

<u>Property</u>	<u>Felt Direction</u>	<u>Type 1</u>	<u>Type 2</u>
Breaking strength, 50% RH, 25°C (77°F), kN/m (lbf/in.)	Machine	¹⁹ 28 (110)	¹¹ 18 (60)
	Transverse	13 (75)	¹¹ 18 (60)
^{D781,} Puncture resistance, 50% RF, 25°C (77°F) N · m (lbf · in.)	Machine	1.1 (10)	^{2.3} 2.7 (20)
	Transverse	1.1 (10)	^{2.2} 2.2 (20)
^{D689} Avg. Tear Strength, g	Machine	1300	2000
	Transverse	2000	1600

TABLE 2

~~Mass~~
Weight requirements for
REINFORCED FLASHING FELT

<u>Minimum Mass, g/m² (lb/100 sq ft)</u>	Type I (Glass fiber reinforced)	Type II (Cotton reinforced)
Scrim and dry asbestos felt	585 (12)	730 (15)
Saturant	234 254 (5.2) 4.8	293 (6)
Weather side coating, filler, and surfacing	730 (15)	730 (15)
Back coating, filler, and surfacing	490 (10)	490 (10)
Total dry, net	2200 (45)	2400 (50)
<u>Maximum, Percent</u>		
% moisture (D-95), maximum	0.5	1.0
mineral stabilizer % filler and surfacing, maximum	65	65



MEMORANDUM

cc: BBH- Mr. Weaver
→BBQ- Mr. Homan

To BBH- Mr. Sutton
From BBH- Mr. Hunkeler
Date 8/9/78
Subject

CHARLESTON'S REINFORCED FLASHING SHEET

Carroll Homan requested characteristics of Charleston's reinforced Flashing Sheet in order to write up a purchase specification chart. After testing the following results were obtained:

Weight/100 sq. ft. - $\approx$ 45 lbs./100 sq. ft.
Dry Asbestos Felt reinforced with a - $\approx$ 12.5 lbs./100 sq. ft.
20 x 10 lenoweave fiberglass scrim

% Saturation - $\approx$ 57%

Tensile Strength - MD: $\approx$ 109
(1"x6" sample at 12"/min. on CD: $\approx$ 97
Scott Tester)

Tear Strength - MD: $\approx$ 2524 g/32 sheets
(2.5" wide sample on Elmendorf CD: $\approx$ 2389 g/32 sheets
Tear Tester.)

PH/rp