PLAINTIFF'S EXHIBIT
K-1137

MINUTES
of the
TECHNICAL & RESEARCH COMMITTEE MEETING
NATIONAL INSULATION MANUFACTURERS ASSOCIATION
New York, N. Y. March 4, 1965

Molded Section

The meeting was called to order at 9:15 A. M. with the following in attendance:

W. Acker	Johns-Manville Sales Corp.
H. P. Hoopes	Fibreboard Paper Products Co.
A. Kevlin	Owens-Corning Fiberglas Corp.
R. McKee	Baldwin-Ehret-Hill, Inc.
C. E. Miller	Fibreboard Paper Products Co.
V. L. Miller	Pittsburgh Corning Corp.
W. Schwingen	The Ruberoid Company
W. Sinclair	Pittsburgh Corning Corp.
R. Stohrs	Pittsburgh Corning Corp.
D. Wingerter	Johns-Manville Sales Corp.
J. M. Barnhart	NIMA

FEDERAL SPECIFICATION HH-I-523

This specification entitled "Insulation Block and Pipe Covering Thermal (Calcium Silicate for Temperatures up to 1200F) was discussed and the following changes agreed to:

(a) Par 1.2 - Add a Class E Jacket - Dual Temperature Jacket.

(b) Par 2.2 - Add ASTM Specifications C 302, C 335, C 356 and remove C 166.

(c) Par. 3.3.1 - Remove 3" wide block

(d) Par 3.3.2 - Change "k" values to 0.42, 0.47 and 0.52 at mean temperatures of 200F, 300F and 400F respectively.

Change compressive strength to 60 psi min (dry) and to 25 psi (wet.

Change soaking heat test to 6 hours duration.

(e) Par 3.4.1.2 - Change Table II to decimals.

(f) Par 3.4.3.4 - Change foil thickness to "not less than nominal 1 mil thick" and water vapor transmission to 0.02 perms.

(g) Add Par 3.4.3.5 - Dual Temperature Jacket (for Below Ambient Applications). The jacket shall be a 3 ply laminate of 60 pounds kraft, nominal .001" aluminum foil, and 55 pound asphalt saturated kraft. The perm rating shall not exceed 0.02 perms.

(h) Par 4.3.2.1 - Add "Method A".

COMBINED ASTM SPECIFICATIONS C 312 & C 521 (CLEARANCE and NESTING SIZES

Ed Davis' negative vote was changed to affirmative by the addition of the word "only" to paragraph 1.3.

This spec will be presented for letter ballot of ASTM Committee C-16.

PHILOSOPHY OF ASTM SPECIFICATIONS

It was agreed that NIMA should request ASTM C-16 Committee to concentrate their efforts toward strengthening their methods of tests and to define the significance of the methods of tests.

"K" VALUES FOR ASHRAE GUIDE

It was reported that NIMA had approximately six months to recommend any changes to Table 21 in the ASHRAE GUIDE. The table will be brought up to date and recirculated to the Committee for comment.

MILITARY SPECIFICATIONS
MIL-I-2781D and MIL-I-2819D

It was agreed that the nomenclature relating to the classifications would be discussed at the next meeting with the idea of obtaining consistency in describing the products presented in the specifications.

Pertaining to AQL and Sampling in the specifications, the following was agreed to:

(1) Examination for Dimensions
Level S.3
AQL 2.5%

(2) Visual Examination
Level 1
AQL 4.0%

(3) Sampling for Tests

Lot size in half sections or segments	Sample Size	Number of test failures allowed (each test)
Up to 63	None	-
64 to 160	2	0
161 to 400	3	0
400 to 1,000	5	0
1,001 to 2,500	8	0
2,501 to 6,300	13	1
6,301 to 16,000	20	2
16,001 to 40,000	32	3

Mr. Barnhart is to write to the Bureau of Ships relative to the above.

It was agreed to hold in abeyance any requests for changes in physical properties in the specs.

OTHER BUSINESS

It was reported that a number of specifications pertaining to thermal insulation had been assigned to Mare Island Naval Shipyard, Vallejo, Calif., for revisions. (See attachment)

ADJOURNMENT

There being no further business, the meeting was adjourned.

Respectfully submitted,

J. M. Barnhart

* Specifications assigned to Mare Island Naval Shipyard, Vallejo, Calif., for revision

SPECIFICATION REVISION SCHEDULE

Specification Number	Title	Date
To be completed 1 January 1965		
MIL-A-3316A*	Adhesive, Fire Resistant, Thermal Insulation	11-19-60
MIL-F-20077*	Felt, Asbestos, Roll	9-6-51
MIL-P-15006A	Paper, Sheathing, Fire-Resistant and Water Repellent	12-28-51
MIL-P-16725A	Packing Material (Spiral Low-Pressure, Plastic)	7-15-52
MIL-P-1342A	Packing Material (Lead, Shredded)	8-12-52
MIL-I-16688C*	Insulation Felt, Thermal, Fibrous Mineral (Semi-Rigid)(Light Weight)	2-6-53
MIL-P-18493	Packing, Preformed, Carbon; and Carbon Stock, Packing	8-26-55
To be completed 1 July 1965		
HH-P-106d	Packing Material, Flax or Hemp	5-18-56
MIL-P-18954 Am. 1	Packing Material Ni-Cr-Fe Alloy, Braided	9-4-56
MIL-P-2911A	Packing Assembly, Hydraulic, Conical and V Types	4-17-57
MIL-F-16374A.Am.1	Packing Material (Metal Covered, For Stern Tubes)	4-4-58
MIL-A-15199B	Adhesive, Asbestos Cloth to Pipe, Insulation	5-21-59
MIL-A-18065 Am.1	Adhesives, High Initial Bond	12-17-59
MIL-B-19564A	Bedding Compound, Thermal Insulation Pipe Covering	1-26-60
To be completed 1 January 1966		
MIL-C-2908A*	Cement, Finishing, Insulation	3-29-60
MIL-I-2818A*	Insulation Blanket, Thermal, Fibrous Material	5-25-60
MIL-C-19993A*	Coating Compound, Fibrous Glass Thermal Insulation Board, Water Vapor Barrier	1-18-61
MIL-(-21099 Am.3*	Packing Assemblies, Hydraulic Conical and V Types, Fire Resistant Type Hydraulic Fluids	1-31-61
MIL-P-17303CAm.4*	Packing Materials, Plastic Metallic and Plastic Nonmetallic	2-2-61
MIL-P-17349A Am.1	Packing Material, Rod, High Pressure, Asbestos	2-2-61
MIL-P-17350A Am.1	Packing Material, Semimetallic, Symbol 1400	2-2-61
MIL-P-17416A Am.2	Packing Material, Metallic, Flexible (Symbol 1430)	2-2-61

SPECIFICATION REVISION SCHEDULE
(Continued)

Specification Number	Title	Date
To be completed 1 July 1966		
MIL-P-17578 Am.1	Packing Material, Plastic(For Dogs for Watertight Closures)(Symbol 1425)	2-15-61
MIL-C-19565 Am.1	Coating Compound, Thermal Insulation Pipe Covering-Fire-, Water-, and Weather-Resistant	2-15-61
MIL-P-20084B*	Packing Material, Ramie-Fiber	3-27-61
MIL-A-17472 Am.2*	Asbestos Sheet, Compressed (Packing Material)	4-21-61
MIL-I-742A Am.1*	Insulation Board, Thermal, Fibrous Glass	5-15-61
MIL-I-22023 Int. Am.1*	Insulation Felt, Thermal and Sound Absorbing Felt, Fibrous Glass, Flexible	7-6-61
MIL-A-23054	Acoustical Absorptive Board, Fibrous Glass, Preforated Fibrous Glass Cloth Faced	10-24-61
MIL-I-15475B*	Insulation Felt, Thermal, Fibrous Glass, Semirigid	3-16-62
To be completed 1 January 1967		
HH-P-41b*	Packing; Asbestos, Pore and Wick	5-24-62
SS-C-466d*	Cloth, Thread and Tape-Asbestos	6-19-62
MIL-I-15091C*	Insulation Felt, Thermal, Asbestos Fiber	7-3-62
MIL-I-16411C*	Insulation Felt, Thermal, Glass Fiber	7-3-62
MIL-I-23128A	Insulation Blanket, Thermal, Refractory Fiber, Flexible	8-24-62
MIL-C-788D	Cloth, Brattice, Cotton, Fire Resistant	12-11-62
MIL-C-20079D*	Cloth, Glass; Tape, Textile, Glass; and Thread, Glass	2-21-63
MIL-P-2863B	Packing, Preformed, Condenser-Tube (Symbol 1435)	4-24-63
To be completed July 1967		
MIL-P-20241C*	Gasket Material, Wool Felt, Impregnated, Adhesive, Pressure-Sensitive	5-17-63
MIL-I-2781D*	Insulation, Pipe, Thermal	6-13-63
MIL-I-22344B*	Insulation, Pipe, Thermal, Fibrous Glass	8-6-63
MIL-I-2819D*	Insulation Block, Thermal	8-9-63
MIL-C-22395A	Compound, End Sealing, Thermal Insulation Pipe Covering-Fire, Water-, and Weather-Resistant	8-29-63
MIL-C-2861C*	Cement, Insulation, High Temperature	9-17-63
MIL-I-15349B	Insulation Tape, Thermal	11-18-63
MIL-I-8760*	Pipe-Insulation, Cork (Fire Resistant Vapor-Barrier Coating)	1-9-64

AGENDA
TECHNICAL & RESEARCO COMMITTEE MEETING
NATIONAL INSULATION MANUFACTURERS ASSOCIATION

Molded Section

9:00 A. M., Thursday, March 4, 1965

1. Federal Specification
   HH-I-523

2. Combined ASTM Specs
   C312 & C521 (Clearance and Nesting Sizes)

3. Test Methods for Consideration for
   Promulgation by ASTM

4. "k" Values ASHRAE GUIDE

5. (a) Nomenclature for MIL-I-2781 & MIL-I-2819
   (Block and Pipe insulation are classified by
   different nomenclature in these specs. This
   should be clarified).
   (b) AQL Provisions in MIL-I-2781 & MIL-I-2819

6. Other Business

7. Adjournment

AGENDA
TECHNICAL & RESEARCH COMMITTEE MEETING
NATIONAL INSULATION MANUFACTURERS ASSOCIATION

ROCK & SLAG SECTION

GLASS SECTION

9:00 A. M., Thursday, March 4, 1965

1. Condensation Thickness Tables

2. Federal Specifications
   HH-I-00558
   HH-I-00559
   HH-I-00545

3. Mechanical Design of Air Duct Systems
   (including attenuation and friction factors)

4. "k" Values ASHRAE GUIDE

5. Color Coding of Cartons

6. Other Business

8. Adjournment