PLAINTIFF'S EXHIBIT 14039.00

MINUTES
of the
TECHNICAL & RESEARCH COMMITTEE MEETING
NATIONAL INSULATION MANUFACTURERS ASSOCIATION
New York, N. Y. September 21, 1961

Molded Section

Chairman H. P. Hoopes called the meeting to order at 9:30 A. M. with the following in attendance:

H. P. Hoopes, Chairman	Fibreboard Paper Products Corp.
D. A. Davis	The Ruberoid Company
V. L. Miller	Pittsburgh Corning Corp.
W. P. Sinclair	Union Asbestos & Rubber Company
W. R. Seipt	Keasbey & Mattison Co.
E. F. Ott, Jr.	Keasbey & Mattison Co.
L. L. Collonge	Mundet Cork Company
R. C. Parlett	NIMA
R. F. McKee	Baldwin-Ehret-Hill, Inc.
R. L. Schneider	Owens-Corning Fiberglas Corp.
W. W. Acher	Johns-Manville Sales Corp.

A. Review of Federal and Military Specs. An attempt to review Federal and Military Specs to decide which should be revised or cancelled, brought out the fact that in many cases the members of the Molded Section do not receive notice of government revision at the time these revisions are first published. In some cases committee members were not up to date on the latest action which NIMA had taken with regard to certain specifications. Following a general discussion of this problem, Mr. Barnhart agreed to:

1. Notify committee members when he notes revisions to specifications of interest in the Federal and Military Index, published yearly with a monthly supplement.

2. Provide NIMA members with the status of NIMA activities in regard to NIMA recommended changes in specific specs. This status to appear on meeting agendas.

Following discussion it was agreed that in those cases where individual companies are working with the government or ASTM on new product specifications or revision of existing specifications, that NIMA should be advised of this fact and the proposed revision, so that the committee's

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knowledge could be applied toward standardization.

NIMA has recommended revisions to the government agency concerned for the following specifications:

a. MIL-I-2781c, dated 15 February 1960. Changes recommended January 9, 1961.
b. HH-I-523a, dated October 14, 1960. Changes recommended December 2, 1960.
c. MIL-I-002819-B, dated 26 January 1960. Changes recommended August 25, 1960.

As far as is know, the government has taken no official action on the recommended changes as of this date.

Mr. Sinclair reported that Unarco is currently working with the government to revise HH-I-561c, to include material for use at 1200 F. The density in this revision will be the same as currently specified by ASTM. Mr. Parlett pointed out the desirability of giving three conductivity values in order to permit drawing of a conductivity curve. Mr. Sinclair agreed to observe this recommendation.

B. Definitions

The list of definitions as revised by Messrs. Ritchie and Barnhart were reviewed and additional changes suggested. These changes were accepted by the entire Technical and Research Committee on the following day and further changes as recommended by the Glass Section were incorporated. The final revision as agreed upon by the T & R Committee, is appended to these minutes. It should be noted that a definition for Insulating-Finishing Cement still requires composition by Messrs. Barnhart and Ritchie.

C. MIL-I-0015091B, Insulation, Felt, Thermal Asbestos Fiber

Mr. Sinclair reported the following revisions were being worked out this Mr. Chilcote.

Paragraph 2.2 - Reference to ASTM 335-54T will be included

Paragraph 3.3.5 - Thermal Conductivity Three values for each type will be specified as follows:

Type A - .47, .62 and .76 at a mean temperature of 100, 300 and 500 F respectively.

Type B - .44, .455 and .47 at a mean temperature of 50, 75 and 100 F respectively.

Paragraph 4.2.2 will be deleted.

Mr. Parlett suggested the following changes in the interest of accuracy, uniformity and clarity:

Paragraph 3.2.1 Construction. Substitute "felt" instead of "sheet".

Paragraph 3.1.2 Type B. Change "suitable repellent agent" to "suitable water repellent agent".

Paragraph 3.2.4 Water absorption - Delete this paragraph since as with all materials of this type, water is absorbed readily.

Paragraph 3.6 Workmanship - Delete the wording "The workmanship shall be first class in every respect" and substitute the words "Workmanship shall be such that the material contains no visual defects which would affect its service quality.

Paragraph 4.4.5 Vibration - Delete this test since it has no meaning without a description of the test apparatus.

Paragraph 6.1.2 should read "Type B Insulation", etc. (delete Type A)

D. HH-I-551a Insulation, Block and Pipe Covering, Thermal Cellular Glass

Mr. Miller reported that negotiations with the government are still under way regarding revision of this specification, and that Pittsburgh Corning has agreed to delete the thickness recommendation contained in this specification and also to delete C 177 procedure included in this specification. Reference to C-177 will be made. Reference will also be made to the compressive test developed by ASTM Committee C-14.

E. ASTM C-312 Recommended Practice for Clearance of Preformed Thermal Pipe Insulation

ASTM is currently considering the revision of this specification to include Thermal Preformed Pipe Insulation for temperatures up to 1200 F instead of 600 F as now written. It was generally felt that the present recommended clearances in C-312 were not adequate for temperatures between 600 and 1200 F, in view of the pipe expansion which occurs at these temperatures and also the normal variation in outside diameter of iron pipe. It was pointed out that NIMA has already recommended that the plus tolerances in 2781C be increased by 1/32 of an inch. Mr. Seipt proposed and it was agreed that the inner diameter tolerances as specified in 2781C, with the 1/32 increase in plus tolerance be substituted for the present clearances recommended in C 312. This revision, as proposed by Seipt would be for temperatures up to 1200 F. It was further suggested that Mr. Barnhart include tables showing the expansion which occurs in iron pipe at the

elevated temperatures, as well as normal variation expected in the outside diameter of iron pipe.

F. New Business

1. Tube O.D.'s

Mr. Hoopes presented a table of outside diameters of insulation for tubing which varied slightly with the NIMA table of 5/11/61. Mr. Hoopes' table reduced the insulation thickness overage above nominal, which resulted in several cases with the NIMA table. It was agreed to present Mr. Hoopes' table to the entire T & R Committee for consideration.

2. Trueness and Squareness of Block & Pipe Covering

Mr. Sinclair advised that he had completed a revision of the proposed test methods for measuring trueness and squareness of pipe and that he would bring these revisions to the ASTM Meeting the following week.

3. 3. HH-I-561C

Mr. Sinclair advised that HH-I-561C was currently being revised to increase the temperature limit to 1200 F. He proposes to list the physical characteristics as currently specified in ASTM C-391.

There being no further business, the meeting was adjourned at 4:30 P.M.

Respectfully submitted

Duane A. Davis
Secretary pro tem