

LABORATORY COMMITTEE MEETING

March 7, 1963

PLAINTIFF'S
EXHIBIT

MHD-120

Messrs: R. W. Higgins ✓
T. S. Clousing ✓
J. W. Hosbein ✓
H. B. Speelman

E. R. Marden ✓
~~T. J. Fehl~~
R. L. Hosbein ✓
J. A. Buattgen ✓

Gentlemen:

Met Mtg. 9 MAY, '63

The meeting was called to order at 10:30 a. m. on March 7, 1963 in the Aurora Laboratory conference room. The next meeting will be held in the same place April 4, 1963.

ACTION TAKEN ON REGULAR AGENDA:

(1) E-13-B TEMPERATURE GRADIENT COMPARATOR

Mr. Higgins will write Mr. Geo. Cobeugh, of Harbison-Walker, for gradients and samples of their material and Mr. Marden will test and evaluate the results as outlined on previous Laboratory Reports. Messrs. John Hosbein and Higgins will discuss patent application within the next several weeks.

*notes need
being coming
from sec. 1...*

(2) E-37-A DEVELOPMENT OF "MS" WALLS AND ARCHES - MODELS

Under this classification current models have been completed with the exception of the proposed Plastic Firebrick nose. Castings for this construction have been designed but are not yet available.

Coordinate pic with brochure

(3) E-36-B ABRASIST CEMENT

Materials still to be tested are "Amazite" by Hallenite and Resin Cement "E" by Calicote. Other samples available are by Plinkote. Mr. Marden developed a Lumnite cement base material which is workable for 1½ hours and has a complete set in 3 hours. This cement was tested by Mr. R. Hosbein but no report is available. The "Tarbo" material now at the plant requires several additives which, if not used carefully, could result in a violent reaction. Before proceeding with the test of "Tarbo" Mr. Bruce Abell will be consulted on the proper procedure in safely handling these materials.

(4) E-38-A DRYING OUT DATA

This project requires one additional test before completion at which time a full report will be submitted. The following tests, on wall sections, have now been completed:

1. Using Calcrete "40" (24hr.cure) 800 F Hot Face
2. Using Decrete "40" (24hr.cure) 800 F Hot Face
3. Using Decrete "40" (7 day cure) 800 +1000 F Hot Face
4. Using Calcrete "40" (72hr.cure) 1000 F Hot Face

Still to be tested:

5. Decrete "40" (7 da.cure) 1000 F Hot Face

done!!



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5. P-3-B SUPER 711 RESEARCH

There were several tests under lengthy discussion. One was the Consistency Test and the other the Shrinkage Test. Under the Consistency Test there are two acceptable methods outlined under ASTM standards designated as Methods "A" and "B". We have equipment for testing under Method "A" whereas our competitors use Method "B". A comparison of results obtained from these tests show some variance. Because of these inconsistencies the Bureau of Ships has indicated it can remove these test requirements temporarily and Mr. Clousing will request them to do this.

Under Shrinkage Tests - Mr. Speelman reported that Bentonite Clay, as received, has always checked out within the specifications as set up by the Supplier and Mr. Abell. Because of excessive shrinkage, tests were made on other cements requiring Bentonite and these also indicated a greater shrinkage. This procedure apparently indicated the clay was at fault. Therefore samples were returned to the Supplier for further testing.

Because of large purchases by Naval and other armed services, Mr. Clousing will make a detailed study of these specifications and determine what available equipment we have for testing under Navy Specifications and what other equipment will be required and the approximate cost.

Mr. Pohl will arrange to obtain a bag of Eagle "66" for testing purposes.

6. D2-B PYROSCAT

Mr. Speelman read a copy of a letter written by Mr. H. O. Luck of Dow Chemical Service and Development Department, addressed to McKesson-Robbins relative to an additive known as "Methocel" for reducing checkering and crazing on Pyroscat. Mr. Marden will test a sample, designated 6SHG-50 CPS.

7. E39-A REFRACTORY HANGER WALL CASTING TEMPERATURE STUDY

Messrs. Marden and Buettgen will construct a wall segment, with placement of thermocouples at various locations, to determine heat flow through tile, casting and insulation at a hot face temperature of 2300 F. *Completed*

8. D1-B DECRETE - CALCRETE

Within the next several weeks, Mr. Higgins will set up procedures for testing the above products with heat applied to one side only.

711 PHILADELPHIA
show excessive shrinkage
these are not, prod's
not containing a cement
only a clay binder
Clay is current colorite

HBS have done considerable testing
and indicate there is being done for product
and this is not all done

87125 + HBS + 1 1/2 DEC
+ 2 1/2 GPM
on 1/4" R

INACTIVE LIST:

8-8B UTILITY CEMENT:

Satisfactory test results were obtained on Hilite and Utility and this project will be placed on the inactive list.

Respectfully submitted,
M. H. DETRICK COMPANY
R & D Laboratory

J. A. Bostegan

JAB:va
Copies to: Messrs: L. H. Hosbein
L. Ellman
C. F. Pollen
H. A. Rowley

Check H9's Semi Silica
Wanna Ohio test requested
by who and what test?