

Order for HBS - 3.0.19, 6.1 ✓

LABORATORY COMMITTEE MEETING

April 11, 1963

6 JUNE NEXT MTH

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

E. R. Marden
R. L. Hosbein
J. A. Buettgen



Gentlemen:

The meeting was called to order at 10:30 a. m. on April 11, 1963 in the Aurora Laboratory conference room. The next meeting will be held in the same place May 9, 1963.

ACTION TAKEN ON REGULAR AGENDA:

1. E13-B Temperature Gradient Comparator

Mr. Higgins will write Mr. Geo. Cobsough, 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. Mr. John Hosbein has all notes on the comparator and Mr. Higgins will give him the photostats of original drawings

2. E32-A DEVELOPMENT OF "MS" WALLS AND ARCHES - MODELS

The revised structural steel for the remaining nose constructions is now drawn up and is awaiting final check by Mr. E. W. Rix. There will be several designs.

3. E36-B ABRESIST CEMENT

Materials still to be tested are "Amazite" by Hallemite and Resin Cement "E" by Calicote. Other samples available are by Flintkote. Mr. Marden developed a Lumnite cement base material which is workable for 1 1/2 hours and has a complete set in 3 hours. This cement was tested by Mr. R. Hosbein but no report is available. The "Karbo" 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 "Karbo" Mr. Bruce Abell will be consulted on the proper procedure in safely handling these materials.

4. E38-A DRYING OUT DATA

All tests under this project have now been completed. Messrs. Higgins, Marden and Buettgen will evaluate the results and issue a final report.

5. P3-B SUPER 711 - RESEARCH

Mr. Clousing reported that he was successful in having the Bureau of Ships eliminate, temporarily, the consistency test applicable to this product.

Mr. Clousing submitted the new specifications which Mr. Speelman will check and determine which items our product meets and which items should be deleted.

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5. P3-B SUPER 711 - RESEARCH/continued

Mr. Speelman reported that innumerable tests have been made on Super 711 and his conclusion is that the excessive shrinkage is due to the Bentonite clay used in the process. Samples of the clay have been sent to the supplier and their tests check out similar to our tests.

Of all the formulations tested the one having an addition of 10% Portland cement seemed the best although it did not meet the abrasion test. A temporary, interim formula change was made covering the addition of Portland cement.

The Eagle "66" cement was tested for shrinkage and density and found satisfactory. Allowable shrinkage is 20% and this cement checked out at 19%. Further check and tests will be made.

6. D2-B PYROSCAT

Tests on this product, using additives to prevent checkering, will continue when time is available. Mr. Marden reported that preliminary tests on Eagle Fireproofing cement indicate that the physical characteristics are similar to our ~~H4Therm~~ ⁷¹¹ ~~711~~ ^{ERM 5/4/63} ^{per TSC 5/2/63}

7. E39-A REFRACTORY HANGER WALL CASTING TEMPERATURE STUDY

Messrs. Marden and Buettgen have completed two tests to date. The first test was halted because of malfunction of a controller. The second test was completed and a third test is being readied. A report will be issued when final test is completed. ^{Final test asked for wire of 5/}

8. D1-B DECRETE - CALCRETE

Messrs. Higgins, ^{ppts} Marden and Buettgen worked up tentative gradients. Original gradients were based on Livovich curves issued by Universal Atlas. The new curves will be sent, on a temporary basis, to a limited number of people. ^{K factors at 3 pts}

OHCIS's tested by NES
Temp — ?

3 pcs mtd HR

^{figures} NEW PROJECT E40A

Mr. R. D. Westman of North Manchester Foundry requested that the Laboratory investigate the physical and thermal properties of a casting (per letter of March 26) they are producing for a local incinerator manufacturer.

Preliminary investigation indicates that we do not have suitable laboratory equipment for some of the tests requested. Further discussion will be held on this project to determine what equipment is needed and to outline procedure for the tests that can be made at the laboratory.

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

JAB:va
Copies to: Messrs. L. H. Hosbein
C. F. Pollan
H. A. Rowley
A u r o r a File

J. A. Buettgen