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RESEARCH - 1976

DRY-SET MORTAR

The effort to assure continuation of licensing income from Dry-Set mortars through the 1980's received approximately 50 percent of research time in 1976. At least four practical ways to formulate an acceptable Dry-Set mortar without asbestos have been discovered resulting in TCA having filed six applications for patents with the U. S. Patent Office, with another to be filed by December 1976.

Field tests of a universal asbestosless Dry-Set mortar, for use with all tile, proved it unacceptable for wall tile and lead to the decision to formulate two separate mortars - one for wall tile, one for ceramic mosaic tile, quarry tile, and paver tile. The wall tile mortar is now ready for field testing on actual jobs, with a companion floor tile mortar following closely behind.

Simulated job-condition tests have shown that under some large job-conditions asbestos dust level exposure of helpers mixing Dry-Set mortar might reach or exceed the OSHA limits, and, consequently, Dry-Set licensees have been advised to follow OSHA regulations, which include labeling of containers with warnings that the product contains asbestos.

Additional tests are planned for later this month to expand data on asbestos dust levels resulting when Standard and non-standard formula Dry-Set mortars are used.

ACRI-FIL MASTIC GROUT

Formulation work to incorporate high temperature storage stability into the new ACRI-FIL formula, which has excellent water resistance and workability, has been slow and not very productive. A formula called ACRI-FIL 676 has at least six weeks stability at 120°F and has been released to two licensees for trials. One licensee reports that production batches do not perform in the field as well as laboratory batches, and Research is working with that licensee to correct the problem.

TILE JOINT DRESSING

No work is currently being done on this product because it is fully developed and ready for licensing.

AAR-II HIGH TEMPERATURE PERFORMANCE

A minor effort was made to improve the resistance of installed AAR-II epoxy grout to steam cleaning. It was found that more work would be needed to accomplish the objective than the improved marketability could justify, and the project has been abandoned.

ASTM TEST DEVELOPMENT

TCA has been working as part of ASTM Committee C21.06 - Ceramic Tile to develop and impact test method for tiled walls and a test method to visually evaluate wear resistance of glazed tile. Both test methods were conceived and developed by TCA Research and we have organized and participated in round robin testing to evaluate the methods. The impact test for tiled walls has been approved at ASTM committee level, but an additional round robin will be needed to complete work on the wear resistance test method for glazed tile.

RESEARCH OPERATION

The TCA Research Division consisted of eight employees during most of 1976, which included two lead researchers and only two technicians. Recently, a part-time employee was hired to handle purchasing, shipping and receiving, thereby freeing Bob Kleinhans for needed development work on the new Dry-Set mortars.

The Division is within budget and forecasts that it will spend about \$200,000 of the \$210,000 originally appropriated.