

SUMMARY

On January 13, 1965, Mr. R. W. Sherman and the writer visited the Cutler-Hammer plant in Milwaukee, Wisconsin to evaluate BMMA-5715 Batch 8 and the new Co-Mer modified wide latitude molding material BXMG-1983 Batch 2B. The BMMA-5715 had been produced with special precautions being taken to insure that the transfer molding latitude would be improved over that of the previous batch. The BXMG-1983 shipped was a sample of the first small-scale production batch and Cutler's evaluation of this product would prove very helpful in determining what characteristics, if any, of this material would have to be improved. The BMMA-5715 proved to be fully satisfactory to Cutler in flash and piece release, cure, dimensional stability and molding latitude. As a result of this evaluation, the customer ordered the remainder of Batch 8 and also indicated a desire for us to inventory another truckload quantity for future shipment. The BXMG-1983 also performed quite well on the one particularly critical job on which it was evaluated. In this trial it was found to be fully competitive with the special material, Plenco 304 then being used. Cutler was extremely interested in our new product as a result of the success of this evaluation and stated that when the production schedule permitted, they would evaluate it on other difficult transfer and compression jobs to check the versatility claimed for it.

DISCUSSION

Cutler-Hammer was quite pleased with the performance of BMMA-5715 Batch 5 during the months of September thru November 1964, and consequently ordered another batch for immediate delivery. When this next batch was produced, there was some difficulty in attaining the required plasticity, and in order to do so it was necessary to increase the roll temperatures considerably and recirculate a high percentage of fines. At the completion of the run, a final mobility curve was prepared on the new material and it was nearly identical to the curve obtained for Batch 5. After verifying the fact that all other properties were in line, a 2,000 pound sample order was sent to Cutler-Hammer.

It was not long after receipt of the material by the customer that a complaint was received from them that the material had reduced molding latitude. They found that if there was any delay in placing the heated preforms in the mold, the mold would not fill. No adjusting of temperatures or cycles could alleviate this problem.

A laboratory plunger molding delay test was devised in which the preheated preforms were allowed to stand various lengths of time before being molded. The maximum delay time at which the mold could still be filled was recorded as a measure of the molding latitude. In comparing the two