SUMMARY

On April 7, 1964, the second field evaluation of the new general purpose, medium-impact molding material BMMA-5715 (former experimental number BXMM-1704) was conducted at Wiggins Electric Company, located in Clifton, New Jersey. This company was selected for the trial since they were using Durez 1544 in their operation, and we would thus be afforded our first opportunity to see how well the BMMA-5715 would perform in the field alongside the material with which it was designed to compete. The results of the evaluation showed that the BMMA-5715 is fully competitive with the Durez 1544 and bettered the latter material in preheat latitude, molded piece appearance, dimensional stability and cure speed. Wiggins was also running a new GE material, PM 2054 EX 2246, flow 13, and the BMMA-5715 was also found to be superior to it in molded appearance.

Considering the results of this field trial, it would be advantageous to schedule a production run for this material in the near future. Plans are presently being formulated toward this end. It is also recommended that this material be released for evaluation at Cutler-Hammer and Allen-Bradley.

DISCUSSION

Wiggins Electric Company manufactures small electrical components and uses a large percentage of Durez 1544 molding material in their operation. During an earlier trial of the BMMA-5715 material at Tech-Art Plastics Company, there was no Durez 1544 material being run, so the Wiggins evaluation represented the first direct comparison in the field between the two molding materials. As at Tech-Art, Wiggins was also using a new GE material which is being supplied to them at a substantial savings over the Durez 1544. It is designated as PM 2054 EX 2246, grade 13, as measured by our plasticity test, and yields molded pieces which pass all of Wiggins' quality control tests. At the conclusion of the evaluation, samples of both the GE - PM 2054 and Durez 1544 were obtained and are presently being evaluated.

The first series of tests were run in comparison with the GE material. A rectangular 1 7/8" x 4 1/4" piece with a 5/8" thick section (the remainder 7/16" thick) and containing four 3/16" D. holes was being made on an 84 ton "Southwark" press. There were 8 cavities in the mold which used one 70 gm. preform apiece. The preforms were R.F. preheated to approximately 250°F prior to being placed into the mold. The cycle included a three-second degassing period immediately followed by a 1.5 minute cure. An unacceptable piece would be characterized by a large blister on the thick section, or holes which had

UCASB00939007