

Monsanto

FROM (NAME & LOCATION)

C. D. Bias, St. Louis Research Dept.

DATE

July 14, 1967

SUBJECT

Mead Packaging

REFERENCE

Work Req. 67-77

TO

E. C. Wilde - EWILD

cc: M. W. Farrar - Res 1
J. R. Darby - Res 2
A. W. M. Coaker - Res 3
N. W. Touchette - Res 3
J. A. Cannon - Res 3
R. H. Mills - Res 3
R. M. Parks - RPARK
W. F. Waychoff - WWAYC
J. S. Bagnall - JBAGN

Ken Wells has completed the testing you requested for Mead Packaging. He asked that I write up the results for you.

Two different formulations were used in each drawdown, using Mead's coated board. In this manner, a direct comparison between two plasticizers was possible. In the case of Benzoflex 40, about 30 drawdowns were made. In no case, were there fewer than 9, so that the averages we obtained are probably fairly representative.

Our conclusions are:

Benzoflex 40 is essentially equal to S-160, equal to or slightly inferior to S-1548, better than S-218A, and very much better than S-218 and the mixture S-160/IGM/TEG 75/24/1.

Benzoflex 9-88 is equal to or slightly better than S-1548 and equal to or slightly inferior to S-160. S-160 is very much better than S-160/IGM/TEG mixture. S-218 is better than S-218A.

The above conclusions are based on the paired results. However, if we were to rate overall performance, I would put them in the following order:

Benzoflex 40 is the best, followed very closely by S-1548. Then, S-160, Benzoflex 9-88, S-215 and S-218A, all four being quite similar. The S-160/IGM/TEG mixture is definitely last.

Of course, these conclusions are valid only for the particular test we ran, and might very well be in a different order if a different board or paper were used.

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One thing more I might mention. None of the samples which Ken prepared had as fast a bonding action as the sample sent us by Mead. I presume that our slower acting adhesion was due to the fact that we did not have the "viscosity building polymer" in our samples. Aside from that missing ingredient, which presumably Mead did not want to give us, our formulations should be like theirs.

C. D. Bias

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