Monsanto

FROM (NAME & LOCATION) A. W. Morgan - St. Louis Organic Research

DATE : March 24, 1969

SUBJECT : Work Request 69-28
IGT/A-5460

REFERENCE :

TO : C. Paton
CPATO

cc: M. W. Farrar Res. 1
J. R. Darby Res. 1
W. F. Waychoff WWAYC
W. E. Schalk WSCHA
J. K. Lilly JLILL
N. W. Touchette Res. 3
R. W. M. Coaker Res. 3
J. A. Cannon Res. 3
R. H. Mills Res. 3

Hot Melts

Sections of the supplied IGT corrugated asbestos wheel were dipped in the following formulations at 135° C, 145° C and 165° C. Films were also drawn from the hot melts.

Sample	1	2	3	4	5	6	7
Aroclor 5460	100	-	95	90	95	90	95
Bareco 195° Wax	-	100	-	-	5	10	-
Elvax 260	-	-	5	10	-	-	-
Elvax 220	-	-	-	-	-	-	5

Results:

Samples three and four, Elvax 260, were unusable in this application since at both 135° C and 145° C gel nibs formed causing clogging of the filter. Even at 165° C the viscosity is sufficiently high to cause problems. Sample one, Aroclor 5460, coats well at 145° C and above with no clogging and could possibly be used at the lower temperature. Number seven requires at least 145° C for good flow but is acceptable at 165° C. Number two, five and six are dippable at all temperatures. All films were weak and brittle and the rating must be by degree of crystallinity rather than brittleness. The results are as follows (numbers 3 and 4 not tested):

$$2 < 7, 6 < 5 < 1$$

Least Crystalline ... Most Crystalline

All dippings except those of sample two are flame resistant. None of the samples smouldered on the hot plate.

Our first recommendation would be either Aroclor 5460 alone or modified with up to 10% Bareco 195° Wax. The modification with wax appears desirable to improve viscosity at the dipping temperature.

If we may answer any questions, please call.

A W Morgan
A. W. Morgan

Time: 6 Hours

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