

INTER-OFFICE MEMO **TENNECO CHEMICALS, INC.**

TO H.B. Carr AT Burlington DATE May 23, 1972
 FROM F.W. Kanzler AT Burlington COPY TO R.J. Eckman
 SUBJECT MONTHLY PROGRESS REPORT P. Gawason
 May, 1972 H.R. Horton
 E.L. Kanyok
 ✓ File

I. ROUTINE ANALYSISA. Raw Material Evaluation

IR Scan	6
223M - Assay, A(0)	37
L ₂ O ₂ - Assay, A(0)	9
Avirol POL-1-N	
Cloud Point	1
% FAS	1
DHW-80	
Bottle Polymerization (6 btles. ea.)	3
RVCM Storage	
Phenol in Copolymer Storage	4
VCM Tank Cars	
Light End Impurities	7
VAcM	
Impurities	10

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B. In-Process Analyses

Trace Oxygen, Compressor	1	8
" " , "	2	11
" " , "	3	13
" " , "	4	12
" " , "	5	12
" " , "	6	11
COD AI		20
COD FCE		20
Phenol		
AI		1
FCE		1
% FAS		
AI		2
FCE		2
DM Water (Copper, Iron,,o-PO ₄ , DO, pH)		
Hot		2
Cold		2
Boiler House		2

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C. Finished Product

Bound Acetate	58	
Gel Count - Brabender Extruder	38	96
Total from Section II	37	37
	TOTAL	332

II. SPECIAL TESTING

A. Resin Plant

1. Raw Material

a. Antifoam Evaluation

In addition to the evaluation of TBEP as an anti-foam during the previous report period, tris octyl phosphate (TOF) was evaluated for Process Engineering as a possible antifoam to be used in Burlington. Tests run with latex as well as with a 1% sodium lauryl sulfate solution in water yielded poorer antifoam and defoamer qualities for TOF when compared with TBP.

b. Lucidol 223M

A shipment of the subject raw material (shipment date 4/20/72) showed erratic assay analysis results (e.g. lot MMGC 015 assay 39.4 to 41.3%). Lucidol was contacted via Purchasing and informed about our findings. Through a call from Lucisol (G. Kuzma), we were informed that the erratic assays were traced to a possible operator error during the mixing of the initiator at the Lucidol Plant. In addition to the above lot, one additional lot (MMGC 061) had a low assay level when analyzed in Burlington (39.8, spec range 40.0-42.0%).

2. In-Process

a. In-Process Magnet

The first stage of the attempt to correlate the in-line 4" double tapered step magnet with the syntron laboratory ferro magnetic contamination test on a 24-hour basis yielded unsatisfactory results. It was found that the calculated weights of the laboratory test results were considerably higher when compared with the weight of iron contamination recovered from the in-process magnet (average $4330 \text{ gm} \times 10^{-9}$ vs. $71 \text{ gm} \times 10^{-9}$ per pound of resin respectively).

An attempt will be made to monitor the contamination on a lot-to-lot basis.

b. 150 Shoe Heel Compound

An attempt to compare gel extrusions of a flexible formulation made from the subject resin with a milled sheet gel test run in Flemington failed. This was mainly due to low stock temperatures during the extrusion, which resulted in a ribbon not suitable for a gel count. The test will be repeated following the next 150 lot.

c. Monitoring of Total and Dissolved Solids in 521, 501 and 250-3 Centrifuge Effluent

In support of the Process Engineering efficiency study of the above resin types, it was found that the 250-3 resin effluent had a total solids content of 0.15% while BR-521 and BR-501 had a total solids level of 0.6 and 1.2% respectively. The results are close to the anticipated values.

d. Haze and Gloss Evaluations (Technical Memorandum)

The recently-received Gardner Haze and Gloss Meters were set up and after an initial check-out of the instruments, seven dispersion resin types, as well as an additive resin and one competitive resin, were evaluated. With the exception of 1738, 1755 and 0565, haze values compared favorably with EXON 640 (<4%). Gloss values were found to be better than 50% at the 20° angle with the exception of the 1732, 1738 and 1755 resins, which again compared well with the gloss value of the EXON 640 resin of 44%.

B. Compound Plant

1. Raw Materials

a. Plasticizer Shipments

A total of eight plasticizer samples were evaluated by gas chromatographic and pH analyses.

b. Color Matching

(1) Small Mill

The small mill for color matching was received in Burlington and became operable on 5/16/72. The mill is exclusively used for color match milling.

(2) Updating Standard Product Color Formulations

The following is a list of color matches performed on standard product color formulations:

2906-1 Natural 01	American Wire
2300 Natural	Production
T-733 White 245	Brand Rex
X606 Gray 151	Kessler Products
2602-1 Gray	Olin Conductors
150 re-match	
2022 Gray	Production
148 re-match	

In addition, a formulation change was required due to a change in plasticizer for 2022 Gray 148. Color matches are also performed for the Channel Black replacement.

c. Color Seminar

R.J. Eckman attended a Color Technology Seminar sponsored by the Diano Corporation. This one-day course was designed to give an introduction to the color theory. In addition, evaluation of color differences and the matching of colors were covered.

C. Miscellaneous

1. Running Account of Analyses

<u>Nov.</u>	<u>Dec.</u>	<u>Jan.</u>	<u>Feb.</u>	<u>Mar.</u>	<u>Apr.</u>
407	249	389	214	289	285

Fred W. Kanzler

F.W. Kanzler

FWK/jt