

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

TO H.B. Carr
 FROM F.W. Kanzler
 SUBJECT MONTHLY PROGRESS REPORT
 October, 1973

AT Burlington
 AT Burlington

DATE October 24, 1973

COPY TO R.J. Eckman
 P. Gawason
 H.R. Horton
 R.A. Lojewski
 W.E. Stewart
 E. Young
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I. ROUTINE ANALYSISA. Raw Material Evaluation

IR Scan	21
Avirol POL-1-N	
Cloud Point	1
% FAS	1
Bottle Polymerization	
(4 runs @4 bottles each)	5
RVCM Storage	
Phenol in Copolymer Storage	4
Styrene Monomer Evaluation	4
Lupersol 223M - Assay, A(0)	1
I ₂ O ₂ - Assay, A(0)	16

B. In-Process Analyses

Trace Oxygen, Compressor 1	18
" " , " 2	17
" " , " 3	19
" " , " 4	19
" " , " 5	17
" " , " 6	19
COD AI	21
COD FCE	21
% FAS AI	4
% FAS FCE	4
pH, Total Fe - Well Water	1
DM Water, Cu, Fe, Do, pH, Phenol	1

C. Finished Product

Bound Acetate	24	
Haze & Gloss	55	
Brabender Extruder Gels	46	
Total from Section II		339
		48
TOTAL		387

II. SPECIAL TESTING

A. Resin Plant

1. Raw Materials

a. Hormel Gelatin (50/50 A-B Mix)

The multi-batch in-plant evaluation of this raw material has been completed. While all the other test parameters fell within the specification for T-315 resin, a wider particle size distribution is very apparent, with the thru 200 showing 15% (specification: 0-10%). This wider distribution also showed a larger amount of tailings, which makes the use of this ready-made blend unattractive at the present time.

Gelatin "A" and "B" types from Swift will be evaluated next by Process Engineering.

b. Drums of Unknown

Two drums of unknown from the Resin Plant were identified. One drum contained Epoxol 9-5, while the other drum was a mix of TAC and solvent cross contaminants.

c. DHW-80 (Meeting with Henkel)

A meeting was held in Burlington on 10/23/73 with representatives from Henkel (Messrs B. Limone, E. Kroll and E. Ryan). Discussed were the DHW-80 performance and the establishing of additional test parameters. A report covering the meeting will issue.

2. In-Process

a. Filter Cloth (NY76W42)

The filter cloth of the above type was removed after four months of running on #1 filter. A filter cloth of the same type had to be removed from #2 filter, however, after only about five weeks running. This was primarily attributable to the poor cleaning of the drum prior to mounting of the cloth. The slurry residual found behind the cloth is presently being analyzed.

b. Slop Program

The first two batches of 0565 covered in the program were evaluated. Leaf tests performed on the freshly stripped latex showed no slop. The batches charged with 16 and 20 pounds L_2O_2 respectively showed a bound acetate value of

b. Slop Program (continued)

4.4% and 4.7%. Residual monomer analysis performed on the 16 pounds I₂O₂ batch showed 2.3% VCM and 0.5% VAcM.

c. Residual VCM

The nitrogen used as carrier gas showed no improvement in sensitivity for this analysis.

A program was started to evaluate the VCM loss with time in 10-5R, 225/16R, BR-501 and 390 resins. A total of 15 analyses were performed.

FDA type extractions were run with film samples in 50% ethanol-water, 8% ethanol-water and water. The results showed levels of 2.17 ppm, 0.58 ppm and 0.46 ppm respectively. The film sample showed a total residual VCM level of 265 ppm.

d. Antifoam

A new antifoam evaluation apparatus has been assembled and put to use evaluating a Nalco antifoam. The antifoam and foam breaking characteristics were satisfactory, however, when added to the latex, the antifoam caused it to coagulate.

e. Plastisol Add System

A meeting was held on 10/22/73 with Marketing to discuss the effects on customers if the tridecanol level may be raised.

A designed experiment was set up to study the effect of various levels of tridecanol and blending resin on rheology and optical properties. A report will issue to cover the findings.

B. Compound Plant

1. Raw Materials

a. Lead Analyses

A total of 13 lead analyses were performed.

2. In-Process

a. 3805-D Black (Lot 8-103574)

Mix 135 of the above lot showed poor dry blend characteristics.

a. 3805-D Black (continued)

Lead analysis of this mix showed a lead level of 92 ppm. The following mix 136, which performed normal, showed a lead level of 0.71% which is also the target level for 3805-D Black.

C. Flemington

1. R&D

a. Supercryl-100

A total of 16 haze determinations were performed in support of this program. The filtration of the Supercryl-100 latex showed dramatically improved haze values.

D. Miscellaneous

1. Personnel

Mr. Elian Young has joined the Burlington Analytical Laboratory as a chemist on 10/8/73.

2. Running Account of Analyses

<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>September</u>
446	403	375	275	427	367

F.W. Kanzler

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FWK/jst