

TO	H.B. Carr	AT	Burlington	DATE	November 20, 1973
FROM	F.W. Kanzler	AT	Burlington	COPY TO	R.J. Eckman
SUBJECT	MONTHLY PROGRESS REPORT				P. Gawason
	November, 1973				H.R. Horton
					R.A. Lojewski
					W.E. Stewart
					E. Young
					File

A. Raw Material Evaluation

IR Scan	33
Avirol POL-1-S	
Cloud Point	1
% FAS	1
Bottle Polymerization	
(4 runs @4 bottles each)	4
(1 run @12 bottles each)	1
RVCM Storage	
Phenol in Copolymer Storage	3
Styrene Monomer Evaluation	6
Lupersol 223M - Assay, A(0)	22
L2O2 - Assay, A(0)	33
Light End Impurities	1

B. In-Process Analyses

Trace Oxygen, Compressor	1	21
" " , "	2	19
" " , "	3	20
" " , "	4	22
" " , "	5	21
" " , "	6	25
COD AI		19
COD FCE		19
% FAS AI		4
% FAS FCE		4

C. Finished Product

Bound Acetate	19	
Haze & Gloss	33	
Brabender Extruder Gels	43	
Total from Section II		376
		32
	TOTAL	408

II. SPECIAL TESTING

A. Resin Plant

1. Raw Materials

a. DHW-80

(1) Analysis of Excess Ammonia

A visit to Henkel in Hoboken was used to witness analysis procedures for excess ammonia determination. The method will be introduced in Burlington by mid-December.

(2) Darling Oleic Acid

DHW-80 manufactured with this oleic acid was evaluated via bottle polymerization. The modified Dow test, as well as the bottles run on 1730 formulations, showed equal or better conversion rates for the Darling DHW-80 when compared with standard DHW-80.

Dow Test

Darling	98.3%
Standard	96.4%

The 1730 formulation showed similar results with 94.2% conversion for the Darling material and 94.0% for the standard after 22 hours. A report was issued.

b. TCE

Runs of 389 and 390 resins exhibited slow reaction kinetics as well as shifts in the particle size distribution. A check of all raw materials made the TCE most suspect of contributing to these difficulties, however, parts of a Witco L_2O_2 shipment showed low assay and poor solubility characteristics and may also have contributed to the poor kinetics.

2. In-Process

a. Plastisol Add System

The designed experiment for rheology studies of various add levels confirmed the findings of previous studies of this nature.

As a result, the tridecanol and AR-901 add specification ranges were revised (± 10 lbs for tridecanol and ± 25 lbs for AR-901).

b. Residual VCM

Analyses were continued in the time study program.

B. Compound Plant

1. Raw Materials

a. Lead Assay

Only two assay analyses were performed because of the breakdown of the muffle furnace.

b. Stabilizer and Plasticizers

Two analyses of DOP in V-1912 impurity check on Nuoplaz 6903 were run via gas chromatography.

2. In-Process

a. Dicer Cooling

In search for a substitute for CO₂ cooling, water was used as a cooling agent on a trial basis. A total of three samples were evaluated for their retained surface water level. The water levels were found to be in the 2 to 3% range.

C. Flemington Plant

1. Plant Expansion

Copolymer effluent and sump water was evaluated for COD, pH, dissolved and undissolved solids in support of this project.

2. R&D

a. Supercryl-100

A total of four haze values were run on production lots in support of this program.

b. Spray-Dried BR-501

Haze and gloss determinations were run to check for differences in BR-501 optical properties when comparing normal dried resin versus spray-dried resin.

D. Miscellaneous

1. Running Account of Analyses

<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>
403	375	275	427	367	387

Fred W. Kanzler
F.W. Kanzler

FWK/ist