

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

TO G.I. Rozand AT Piscataway DATE January 29, 1974
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SUBJECT QUALITY CONTROL MONTHLY REPORT
January, 1974

I. RESIN PLANTS

A. Raw Materials

1. Methocel

- a. The last four shipments received at Burlington had low (out of specification) viscosities. They were accepted for use because of immediate plant needs.
- b. Ferromagnetic contamination counts continue to be high. Round-robin testing (Dow, Burlington, Flemington) will begin in February.

2. Gelatin

- a. Due to short supply of Atlantic gelatin, Hormel gelatin has been used for most of the month. Particle size has shown broader distribution and more fines.
- b. Two samples of mixed "A" and "B" types were received from Atlantic, representing a range of products which can be more easily supplied than the current separate products. Performance of these products is being investigated in the Flemington Pilot Plant.

3. Antistats

Evaluation of Monamine ADS-100 (Mona Industries) as an alternate to Ninol 1281 is continuing. Results to date show equivalent antistatic properties, but heat stability testing is not yet completed.

COLORITE 012540

4. Lucidol 223M (2-EHP)

One recent lot of this raw material showed active oxygen assays below the specification minimum of 40%. A Corrective Action Request was submitted to Purchasing. Lucidol (G. Kuzma) indicated that their Technical Services Group is investigating.

5. Raw Material Survey

Handling and storage requirements for raw materials used in Burlington resin production were reviewed. Recommendations for required procedures to permit storage of a six-month supply were made.

B. In-Process Testing

1. Oxygen Analysis

As a result of a continuing Quality Control program, Teledyne Trace Oxygen Analyzers have been ordered for the monomer recovery compressors in the Burlington Homopolymer, Copolymer and Plastisol Plants. Until these units are installed (expected delivery mid-March), we will continue to monitor each compressor for oxygen.

2. Large Particle Batch (Flemington)

A large particle batch of 225/16R was examined in an effort to determine the cause. The particles were found to be tight agglomerates rather than BB's, and no evidence of mischarge was observed. Production has adjusted water/monomer ratio to avoid further occurrences.

C. Finished Product Testing

1. Reduced Acetate Charge

Bound acetate testing is being performed on selected samples of each copolymer lot produced in support of an LOP intended to lead to reduced acetate charges in all copolymers. Preliminary results indicate that the bound acetate concentration has been reduced to mid-specification for higher acetate resins (T/315, T/314) and to low-end specification for the lower acetate resins (T/389, T/390) after a 1% (based on total monomer) reduction in acetate charge. A further reduction in charged acetate will be explored.

2. Pantasote 315 Type

One bulk car of Pantasote copolymer was analyzed prior to ship-

ment to Resin Plant customers. This resin was found to be lower in bulk density and finer in particle size compared with Tenneco 315.

D. Process Engineering Support

1. Flemington Conversion

Samples of copolymer centrifuge effluent and recovered VAcM storage sump water were treated with lime and caustic to determine required levels for neutralization under simulated effluent conditions. Results were transmitted to Process Engineering.

2. Defoamer Evaluation

Of six candidates evaluated, one defoamer from Nopco and one from Hercules were found to be acceptable foam break and retarding capabilities, compared with TBP. Further tests will be performed with latex samples to check filterability and heat stability of the resin after defoamer treatment.

3. Plastisol Filter Cloth

The monofilament cloth being evaluated in "A" Plant (NY76W42) was found unacceptable for filtering of sodium lauryl sulfate-based latices because of high effluent solids (12%). An alternate type (NY76K22), which showed acceptable effluent solids, will be evaluated in the plant.

E. General

1. Raw Sewage Analysis

Samples of raw sewage were examined in an effort to explain high COD levels. The suspected cause is copolymer fines from recent production using Hormel gelatin.

2. Resin for Resale

- a. Three Sea-Land containers of CIRES 25100 (T/225 type) were similar to previous shipments.
- b. Thirty Sea-Land containers of Kema-Nord PE-712 (T/1760) were similar to previous shipments.

3. Specifications

Revised specifications for all homopolymer, copolymer and plas-

tisol raw materials were issued during the report period.

II. COMPOUND PLANT

A. Raw Materials

1. Nuoplaz plasticizers 6055 (125.7M lbs), 6903 (237.4M lbs) and 6054 (84.9M lbs) were successfully used in place of DOP in various formulations.
2. Purchased resins from Pantasote (225 type), Firestone (225 type), Conoco (225 type) and Goodrich (250-12S type) were used in compound with no significant problems.
3. All standard formulations now using T/250-12, with the exception of Western Electric compounds and T/2022, will be switched to using T/225 as they occur in the schedule.

B. Fords Plant Support

Effective February 1, all lots of Supercryl produced in Fords will be tested at the Compound Plant for processing efficiency and optical properties. Product specifications will be established once sufficient data is available.


W.C. Champion

WCC/jst