

E. I. DU PONT DE NEMOURS & COMPANY

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Pigments Department

Newport, Delaware
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"AFFLAIR" - NEWPORT
XOA-5 - CLOSING REPORT

Title: Mica Classification for NF-128-D

Purpose: The purpose of this run is to pre-classify the mica which will be charged to a batch of NF-128-D "Afflair" (Improved Gold) in order to eliminate the fines (below about 5 microns) from the mica charge. This first plant batch will be used, when completed, for initial sales evaluation of the NF-128-D grade.

Results: The classification run was to be patterned after run MEP-1037-7 made on a similar machine at the Engineering Test Center. Yield on this run was 67%.

On the advice of R. E. Stuber the Newport machine was set up with 5 classification decks, interior vane tips pointing opposite to direction of rotation, 35° louver curtains, 3,000 RPM. Feed was set at 500 lbs./hr. and air flow was controlled by blanking off the air intake. Intake area was estimated to be about 6-1/2 square inches and was obtained by trial and error.

The following classification was effected on 5,500 lbs. of mica charged:

<u>Cut</u>	<u>Wt. Product</u>	<u>Wt. Sample</u>	<u>Total Wt.</u>	<u>%</u>
11	837	10	847	15.5
21	3542	110	3652	66.5
31(dust)	980	10	990	18.0

Microscopic examination showed the 21 product to be equivalent to the MEP-1037-7 standard.

Future Operation: The method of operation employed is not satisfactory for production use. A throttle control on the inlet air downstream of the pitot tube should be installed and specification of air velocity by pitot pressure must be made.

An attempt should be made to operate with 4 decks (normal) instead of 5 in order to avoid mechanical changeover for the mica classification.

Closing Report Written By: P. G. Reis - Research Division

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