

TO File

AT

DATE September 28, 1977

.. A. Schnappell

AT Burlington

COPY TO R. S. Cole
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A. C. SiegelSUBJECT 1755 STEAM STRIPPING TRIAL UPDATE
LOP 1155-2, ESR-499

The four batch 1755 trial was conducted at the end of the recent run on 9/24 and 9/25. To each batch before steaming began, eight gallons of AVIROL was added. As each batch was transferred to the blend tank, the normal amount of buffer salts solution was added raising the latex PH to 9.5. The first batch, B-1421, was only 89°F. when steaming began requiring an unusually long steam-heating period of 2 hr. 10 min. to reach 140°F.. This extended heating period did not seem to affect latex stability based on leaf test data. Overall the batches were heated from 33 to 51°F. to reach 140°F.. The time required for each batch and the leaf test, residual VCM and % solids data are tabulated in Table I attached. The latex condition before and after steaming appeared better than encountered in the last 1755 trial. The wet cake weights ranged from 33 to 52 grams. For the previous trial the wet cake weights were 44 to 126 grams. All four batches were stripped to less than 2000 ppm during the steaming period which is also much better than achieved in the first two trials.

Filtering of the first three batches began with two filters at a lower than normal rate. With the third filter operating several hours later the drier inlet temperature climbed to 250°F. which was 30°F. less than obtained with regular 1755 latex earlier in the day. The filtering rate did not change throughout the next eighteen hours required to filter the steam-stripped latex. Heels from the regular 1755 run were blended into the steamed latex the last ten hours of filtering but did not improve the filtering rate. The filter cake produced was thinner than normal but had average moisture content. The exact cause of the reduced filtering rate is not known. The latex was more dilute than normal with a % solids of 36.1. Also the filter cloths were not in optimum condition since they were in service at least five weeks. These conditions may have affected filtering to some degree. The true effect of steam stripping on filtering can only be determined through a longer production period of at least three days.

1755 STEAM STRIPPING TRIAL UPDATE
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The attached Q. C. sheet for the resin produced from the steam stripped batches shows that the resin quality properties examined were not adversely affected. The Severs viscosity was slightly lower than the viscosities measured for recent 1755 but it was not off-spec. Resin and latex samples have been submitted to Resin Applications for thorough characterization of rheological and particle size properties. Surface tension measurements will be made as soon as the latex samples are returned.



L. A. Schappell

LAS/ib
Attachments

1755 STEAM STRIPPING TRIALS 9/24-25/77

BATCH	TEMP.	STEAM	LEAF TEST, % H ₂ O				RESIDUAL VCIN, PPM			% SOLIDS			LEAF CAKE WTS.			
	B.S.	TIME	ΔT	BS	AS	TR	BS	AS	TR	BS	AS	TR	WET		DRY	
1421	89	130	51	25.5	24.9	24.3	13840	950	1280	42.7	40.5	32.3	39	41	29	3
1422	104	105	36	24.8	25.7	27.3	7650	1500	1000	42.9	39.1	35.2	42	40	32	2
1423	95	100	45	29.6	27.4	23.6	17850	1070	760	43.1	42.4	42.7	33	52	23	4
1424	107	95	33	24.0	22.8	23.0	8220	1600	900	42.2	40.0	31.5	44	45	34	3

Blend Tank 6 1800 Hr. 9/24 36.1% PH=9.5

COLORITE 019136

WAS 9/27/77

TENNECO CHEMICALS INC.
ORGANICS AND POLYMERS DIVISION
QUALITY CONTROL - PLASTISOL
DAILY REPORT

SPECIAL
STEAM STRIPPED
LOT

DATE 9/25/77 TYPE 1755 LOT 837078 PLANT 8

COMPOSITE	BROOKFIELD VISCOSITY				SEVERS VISC.		FLAKES/STRANDS	
	INITIAL		1-DAY		80 PSI	100 PSI	PALLET	
	2 RPM	20 RPM	2 RPM	20 RPM				
<u>1</u>	<u>42</u>	<u>39</u>	<u>76</u>	<u>63</u>	<u>152</u>	<u>103</u>	<u>3</u>	<u>OK</u>
<u>2</u>	<u>42</u>	<u>37</u>	<u>76</u>	<u>59</u>	<u>172</u>	<u>113</u>	<u>13</u>	<u>OK</u>
RANGE			<u>4</u>			<u>10</u>		
AVERAGE			<u>61</u>			<u>108</u>		

RELATIVE VISCOSITY 2.40

WETTABILITY PASS

HEAT STABILITY 10

CLARITY 1 GRAIN 1

VOLATILES 0.1

AIR RELEASE 4

HAZE/GLOSS -

BAGS 900

METHANOL EXTRACT -

POUNDS 45000

CONTAMINATION 0.0/0.0

GRADE I

REL. YIELD 15

MKT DISPOSITION

HEGMAN 5 1/2

NOTES:

TENNECO CHEMICALS INC.
ORGANICS AND POLYMERS DIVISION
QUALITY CONTROL — PLASTISOL
DAILY REPORT

DATE 9/24/77 TYPE 1755 LOT 437077 PLANT f

COMPOSITE	BROOKFIELD VISCOSITY				SEVERS VISC.		FLAKES/STRANDS	
	INITIAL		1-DAY		80 PSI	100 PSI	PALLET	
	2 RPM	20 RPM	2 RPM	20 RPM				
<u>1</u>	<u>42</u>	<u>37</u>	<u>43</u>	<u>79</u>	<u>224</u>	<u>161</u>	<u>3</u>	<u>OK</u>
<u>2</u>	<u>42</u>	<u>36</u>	<u>76</u>	<u>69</u>	<u>148</u>	<u>160</u>	<u>13</u>	<u>OK</u>
<u>3</u>	<u>42</u>	<u>34</u>	<u>76</u>	<u>74</u>	<u>148</u>	<u>165</u>	<u>23</u>	<u>OK</u>
<u>4</u>	<u>42</u>	<u>39</u>	<u>85</u>	<u>75</u>	<u>264</u>	<u>181</u>	<u>33</u>	<u>OK</u>
RANGE			<u>10</u>			<u>21</u>		
AVERAGE			<u>74</u>			<u>167</u>		

RELATIVE VISCOSITY 2.36

HEAT STABILITY 10

VOLATILES 0.1

HAZE/GLOSS -

METHANOL EXTRACT -

CONTAMINATION 0.0/0.0

REL. YIELD 8

HEGMAN 6

WETTABILITY Pass

CLARITY 1 Grain 1

AIR RELEASE 1 1/2

BAGS 1620

POUNDS 81000

GRADE I

MKT DISPOSITION

NOTES: