

TRIPLE/S DYNAMICS  
PROCESS EVALUATION

[REDACTED]

BY: [REDACTED]

LAB SAMPLE NUMBER: 79-180

SALES REPRESENTATIVE: [REDACTED]

SUBJECT: Wire Recovery System for [REDACTED]  
[REDACTED]

BACKGROUND: A sample of scrapped blue cable was recieved from [REDACTED]. The object of the test was to separate the copper wire from the plastic.

SUMMARY: A process was established that would yield a wire fraction that contains less than the 1% allowable plastic contamination.

PROCEDURE: The cable was initially run through a 24 Granulator equipped with a 1/8"Ø grate. A sieve analysis was performed on this granulated sample. The sample was then passed over a 12 mesh vibrating screen a total of two passes or 6 feet of travel. The overs were weighed and put aside, and the throughs were weighed and rescreened on a 35 mesh vibrating screen (again for two passes.) The overs and throughs from this screening were collected and weighed.

The - 12 mesh x +35 mesh material was next passed over a V-135 Gravity Table equipped with a 65 count deck with a tailing riffle. There were three cuts made off the gravity table; lights, mids, and heavies. Each of these fractions were collected, weighed, and a bulk density test run.

RESULTS AND  
DISCUSSION:

The results of the sieve analysis and bulk density test run on the granulated cable are presented in Table 1.

Table 1 - Sieve Analysis and Bulk Density Results on Scrapped Cable Granulated Through a 1/8"Ø Grate

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Table 1 - Continued

<u>Sieve Size</u>	<u>Percentage</u>
+6 mesh	3.83
+8 mesh	6.76
+10 mesh	15.36
+14 mesh	21.71
+20 mesh	13.19
+28 mesh	10.23
+35 mesh	7.45
+48 mesh	6.03
-48 mesh	15.44

Bulk Density is 33.96 lbs/ft<sup>3</sup>

The granulated sample was then screened on a 12 mesh screen and next on a 35 mesh screen. The results of these two screenings are presented below:

<u>Fraction Size</u>	<u>Percent</u>
+12 mesh	66.49%
-12 mesh to +35 mesh	29.26%
-35 mesh	4.25%

The granulated material was fed to the vibrating screen at a feed rate of approximately 1200#/hr.

The results of the gravity separation of the -12 mesh to +35 mesh fraction is presented in Table 2.

Table 2 - Percent Distribution and Bulk Density of the -12 mesh to +35 mesh Fraction of Granulated Cable Fed to a V-135 Gravity Table

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