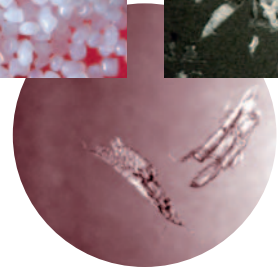
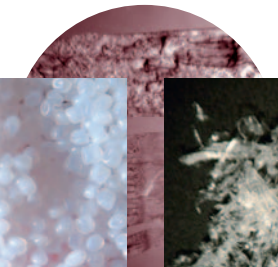
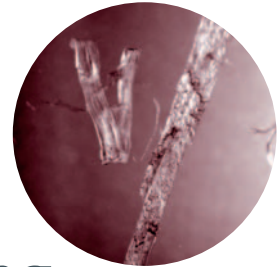
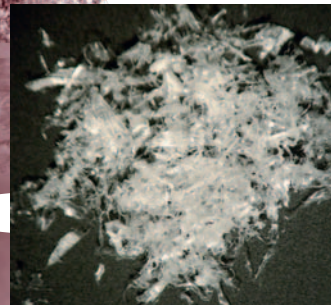


Product Testing

Electronic Sample Report



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Test Report

Customer

Report Number Xxxxx

Tested by William Sahrhage

Date 24.10.2007

Purpose Remove dust and streamers

Desired Clean Rate 30 PPM or less at 63 to less than 500 micron

Required Flow Rate 40 t/hr

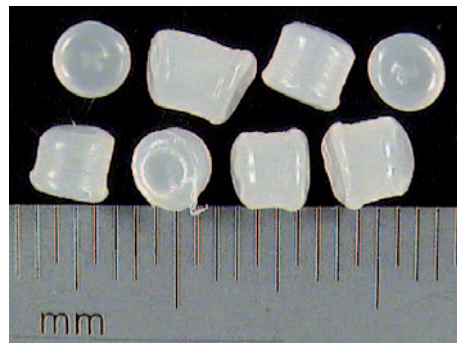
Standard Our standard for dry sieve analysis comes from ASTM D1921-01, Test Method B. We generally use sieve sizes in the micron range of 2000, 1000, 500 and pan for smaller sizes. Our wet analysis standard is done in accordance to the European FEM 2482, Type A, B or C, and the Pelletron method. For regrind material, we use the dry sieve analysis, for virgin material the wet test.

Test Apparatus Pelletron FineAnalyzer for wet test analysis. See also special FineAnalyzer manual for more information

Dust Definition We consider dust as particles between 1.6 and 500 micron (Pelletron method). The FEM 2482 defines dusts between 500 and 63 micron (type A), to 40 micron (type B), and to 20 micron (type C). Test 1 was conducted using the FEM A dust definition, and Test 2 was conducted using the Pelletron dust definition.

Material Description	Sample 1	Sample 2
Type:	PE	PC Regrind
Trade Name:	1	2
Manufacturer:	-	-
Bulk Density (kg/cu m):	591.55	510.34
~Pellet Size (mm):	~3.2 mm x ~3.6 mm	~1 mm to ~8 mm
Pellet Shape:	Cylinder	Irregular

Picture of Sample 1, PE



Picture of Sample 2, PC Regrind



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Summary Sheet

Test Summary The material samples were cleaned in the Deduster model P10. Samples of the before, after and removed materials were analyzed for particle size distribution to determine the quality of cleaning. Test data is recorded on page 4 , and sample pictures are on pages 5 to 7. All material samples have been packaged for your analysis.

Two methods were used to evaluate your material. For Sample 1, the fine dust was evaluated using wet testing from pellet samples. Pellets were separated from the removed streamers and dust to show carryover, while the remainder was used to calculate the PPM level of the removed streamers and dust. For Sample 2, a dry sieve analysis was used to calculate dust removal.

Result of Test



After inspecting the entire Sample 1 cleaned sample, there was evidence of streamers. The picture to the left shows that some pellets still have attached tails. These tails may break off during further conveyance or moving. We estimate approximately 0.01 percent of the pellets had attached tails.

Washing the pellets for fine dust revealed the sample contained less than 10 PPM dust in the 63 to <500 micron range. Good product carryover was kept to less than 0.02 percent.

The Sample 2 regrind material was quite dusty. The dust level was reduced to less than 75 PPM. Good product carryover was kept to less than 0.11 percent.

Suggestions

A rotary valve should be used to feed the materials into the DeDuster, and a cyclone be used for the collection of dust.

Deduster Settings

	Sample 1	Sample 2
Deduster Type:	P10	P10
Filter Type:	PTFE	PTFE
Blower RPM:	2900	1873
Product Flow Rate (kg/hr):	454	300
Feeder Type:	Hopper	Hopper
Wash Air Fan Setting:	N/A	N/A
Variable Frequency Drive:	Yes	Yes
Type Dust Collector:	HCDC	HCDC
Wash Deck Style:	Standard	Standard
Inlet Deflector Position:	Left	Left
Venturi Deflector Position:	7 mm Left	7 mm Left
By-Pass Damper Position:	Closed	Closed
Bleed Air Valve:	9 mm Open	9 mm Open
Carryover Deflector:	Standard	Standard
Product Outlet:	Open	Open

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Deduster Analysis Data

As Received Analysis

Sample 1

Total Quantity Cleaned (g)	<u>16932,6</u>
Wet PPM 63 to <500 µm	<u>3308</u>
Wet PPM 1.6 to <63 µm	<u>103</u>

Sample 2

Total Quantity Cleaned (g)	<u>6804</u>
Dry <500 µm	<u>4950</u>

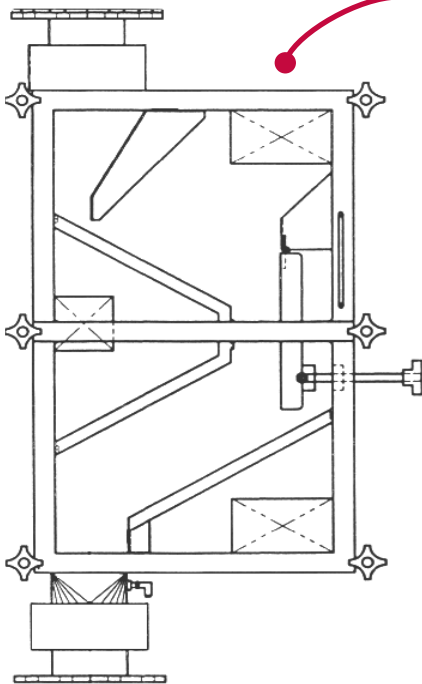
Removed Material Analysis

Sample 1 PE

	Percent	~Wt (g)
Quantity Removed:	<u>0,8827349</u>	<u>149,47</u>
Dry Sieve Analysis:		
Carryover:	<u>2,2576</u>	<u>3,3744</u>
Streamers/Dust:	<u>97,7424</u>	<u>146,0956</u>

Sample 2 Regrind

Quantity Removed:	<u>2,9866255</u>	<u>203,21</u>
Dry Sieve Analysis:		
>2000 Micron	<u>3,6667</u>	<u>7,4511</u>
>1000 Micron	<u>35,0000</u>	<u>71,1235</u>
>500 Micron	<u>45,0000</u>	<u>91,4445</u>
<500 Micron	<u>16,3333</u>	<u>33,1909</u>



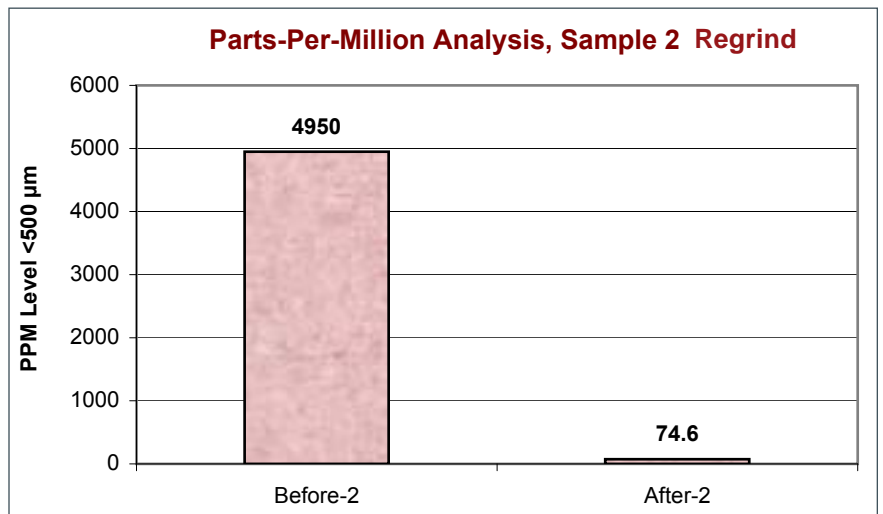
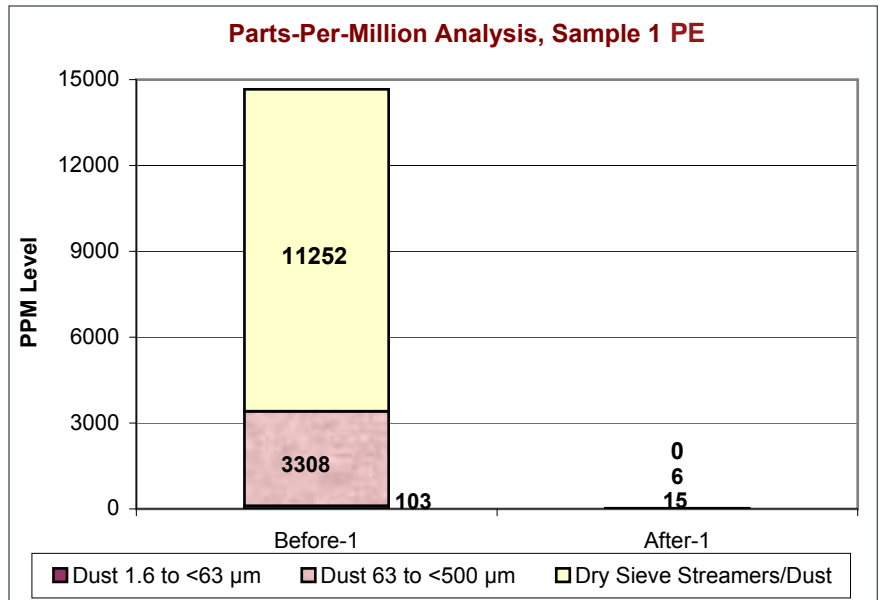
Cleaned Analysis

Sample 1

Quantity Cleaned (g)	<u>16783,13</u>
Wet PPM 63 to <500 µm	<u>6</u>
Wet PPM 1.6 to <63 µm	<u>15</u>

Sample 2

Total Quantity Cleaned (g)	<u>6600,79</u>
Dry <500 µm	<u>74,6</u>



Pictures of Sample 1

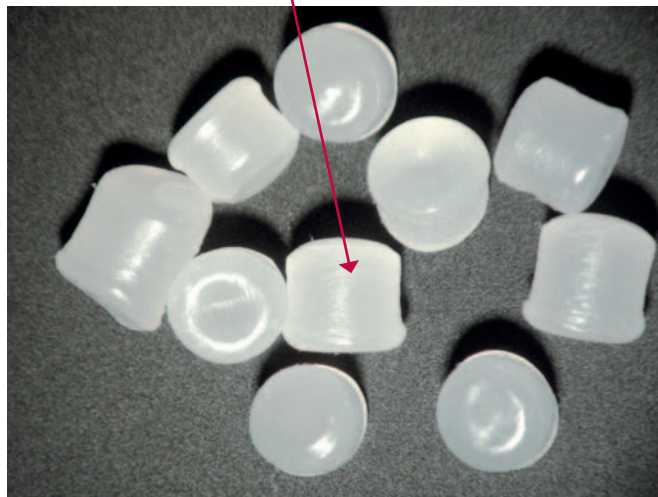
Before Cleaning



After Cleaning

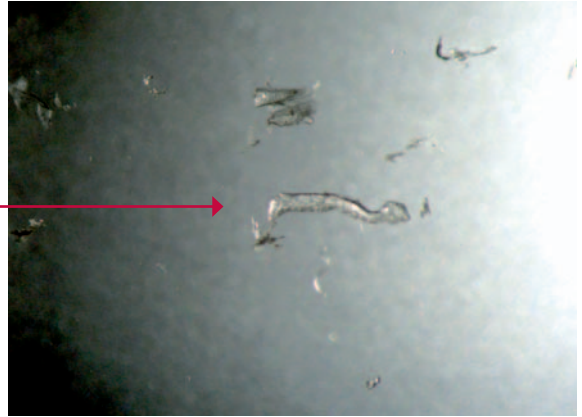
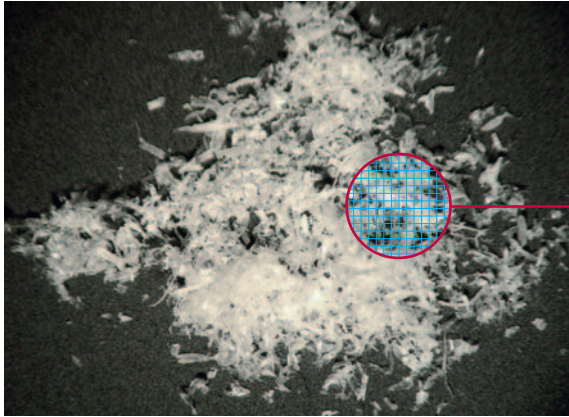


Magnification of Clean Pellets

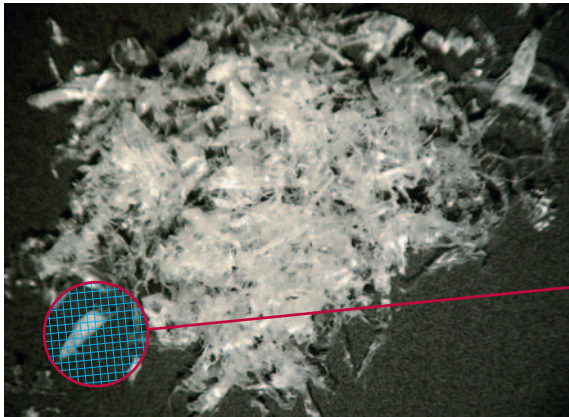


Pictures of Sample 1 – Removed Dust and Streamers

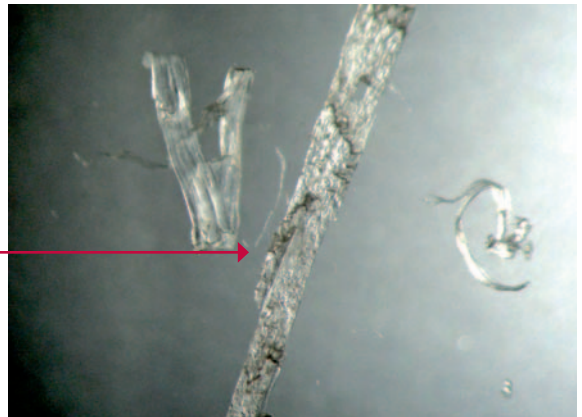
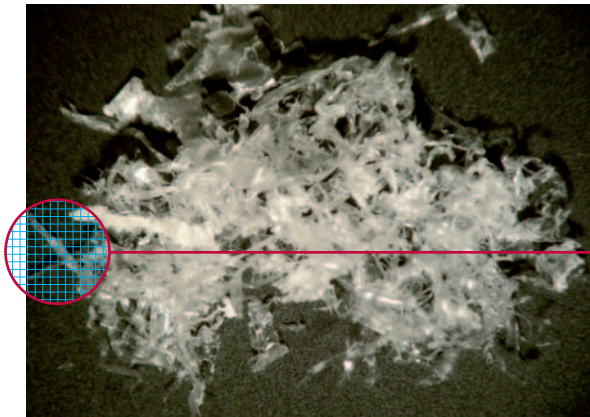
<500 μm



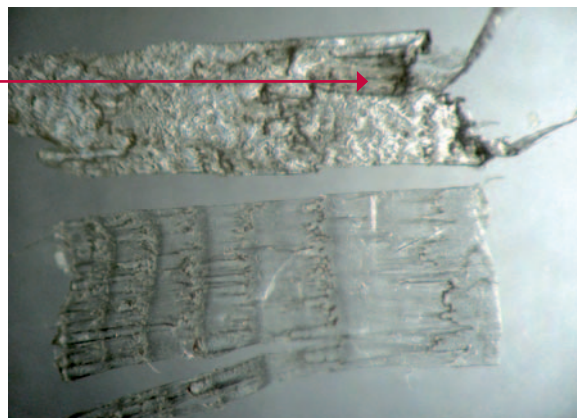
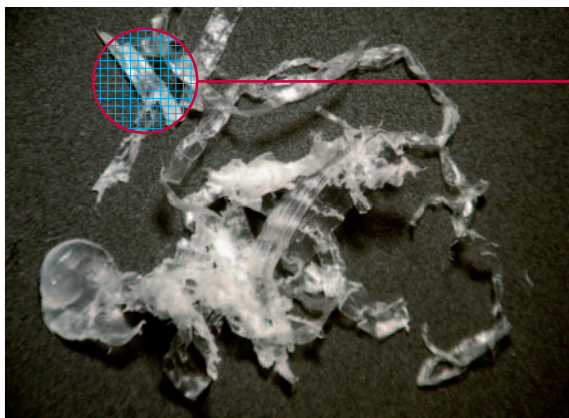
500 to <1000 μm



1000 to <2000 μm

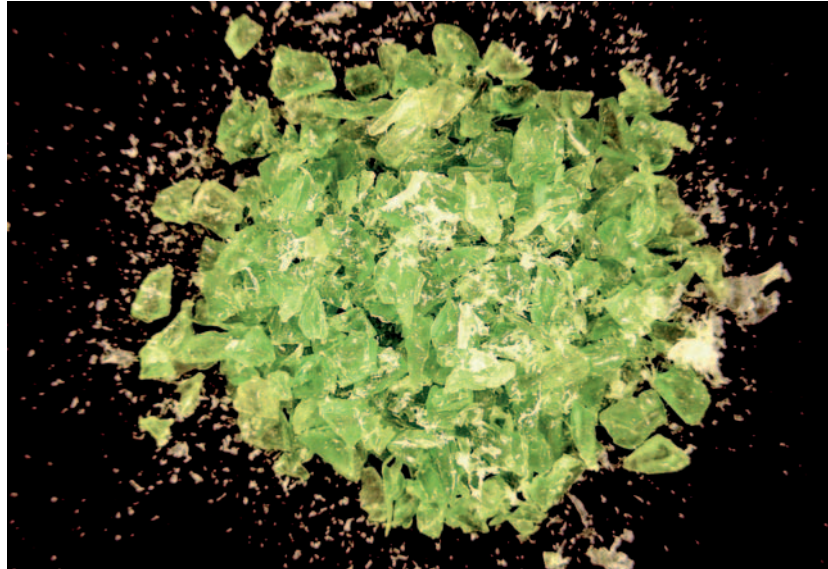


>2000 μm



Pictures of Sample 2

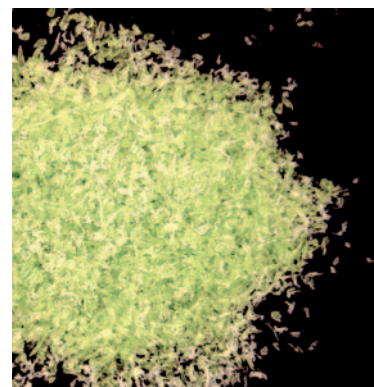
Before Cleaning



After Cleaning



Removed Dust $< 500 \mu\text{m}$



Removed Dust 500 to $< 1000 \mu\text{m}$

Datasheet for DeDusting Test

From:

Company name:

Address:

E-mail:

Tel:

Fax:

Our Shipping Address:

Pelletron Corporation

Attn: Bill Sahrhage, Lab Manager

499 Running Pump Rd.

Lancaster, PA 17603

USA

Tel: (717) 293-4008

Fax: (717) 293-4011

E-mail: Bill.Sahrhage@pelletroncorp.com

Please note: Material must be shipped DDP. We do not accept material freight collect or other than DDP!

Quantity Shipped: (approximately 20kg or 50lbs)

Carrier and service:

Date of Shipment:

Copy of the Material Safety Data Sheet) MSDS attached.

Specification:

Material Name (brand name/chemical name): _____

Dust Definition (please specify the dust particles to be removed i.e. all particles <500 micron): _____

Streamers: No- Please specify length of streamers _____

Flow Rate (in kg/h) : _____

Bulk Density (in kg/m3): _____

Shape/Size: Round- Cylindrical- Uneven- Other- _____

Desired dust content after cleaning (% or ppm): _____

Process Moist: _____

Process Temp (C): _____

Acceptable Carryover (%): _____

Description of application and other information: _____

Return shipment instructions:

Account # for Return Shipment:

Please select one:

Return all material:

Return samples and removed dust only:

No returns:

Within a few days, you will receive a detailed test report and analysis, as well as a recommendation for a DeDuster, suitable for your application.

Thanks for your interest in Pelletron DeDusters. We are looking forward to working with you.