



September 16, 2014

Mr. Frank Zakar
National Transportation Safety Board
Materials Laboratory Division
490 L Enfant Plaza East
Washington, DC 20594
USA

Intertek PTL # P20143394

Dear Mr. Zakar:

Enclosed you will find the revised results of the testing you requested.

If you have any questions regarding the data, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink, which appears to read "Kevin E. Schuman", is written over a solid black rectangular redaction box.

Kevin E. Schuman
Quality Manager

KES/mm

Enclosures

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Testing : **Compositional Analysis By Thermogravimetry**
 Test Method : ASTM E1131-08 (2014)
 Project Number : P20143394
 Customer : National Transportation Safety Board
 Attention : Frank Zakar
 Analyst : T. Keith
 Date : September 10, 2014

Attachments : 2

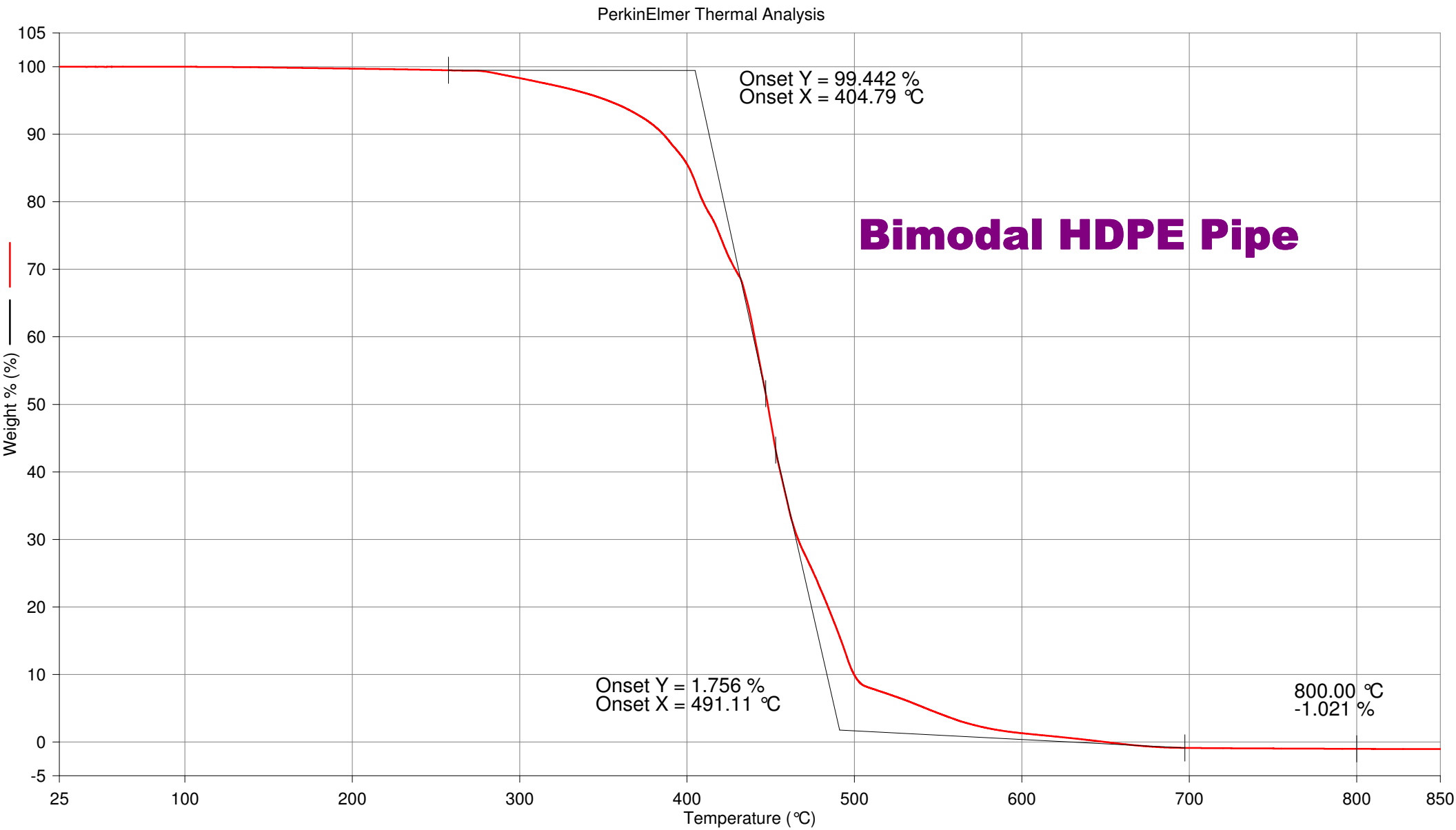


Revised 09/16/2014:
 Graphs revised to include onset transition
 temperatures and percent weight loss

Instrument : Perkin Elmer Pyris 1 TGA
 Test Atmosphere : Air
 Flow Rate : 35 ml/min
 Calibration Procedure : Calibrated vs. Magnetic Transitions Of Alumel, Nickel, and Perkalloy
 Pre-Analysis Purge Time : 5 minutes
 Heating Rate : 10°C/min
 Starting Temperature : 25°C
 Final Temperature : 850°C

Sample Name : **Bimodal HDPE Pipe**

Temperature (°C)	% Weight	Temperature (°C)	% Weight	Temperature (°C)	% Weight
30	99.99	320	97.28	610	1.05
40	99.99	330	96.71	620	0.81
50	99.99	340	96.04	630	0.55
60	99.99	350	95.24	640	0.28
70	99.99	360	94.25	650	-0.01
80	99.99	370	92.97	660	-0.30
90	99.99	380	91.33	670	-0.55
100	99.99	390	88.77	680	-0.74
110	99.98	400	85.56	690	-0.84
120	99.97	410	79.78	700	-0.89
130	99.95	420	74.76	710	-0.90
140	99.93	430	69.48	720	-0.92
150	99.90	440	60.43	730	-0.94
160	99.86	450	47.42	740	-0.96
170	99.82	460	35.42	750	-0.97
180	99.79	470	27.95	760	-0.98
190	99.75	480	22.48	770	-0.99
200	99.72	490	16.37	780	-1.00
210	99.68	500	9.90	790	-1.01
220	99.65	510	7.94	800	-1.02
230	99.61	520	7.11	810	-1.03
240	99.56	530	6.24	820	-1.04
250	99.51	540	5.26	830	-1.05
260	99.46	550	4.27	840	-1.06
270	99.42	560	3.36	850	-1.06
280	99.28	570	2.61		
290	98.81	580	2.02		
300	98.32	590	1.60		
310	97.81	600	1.30		



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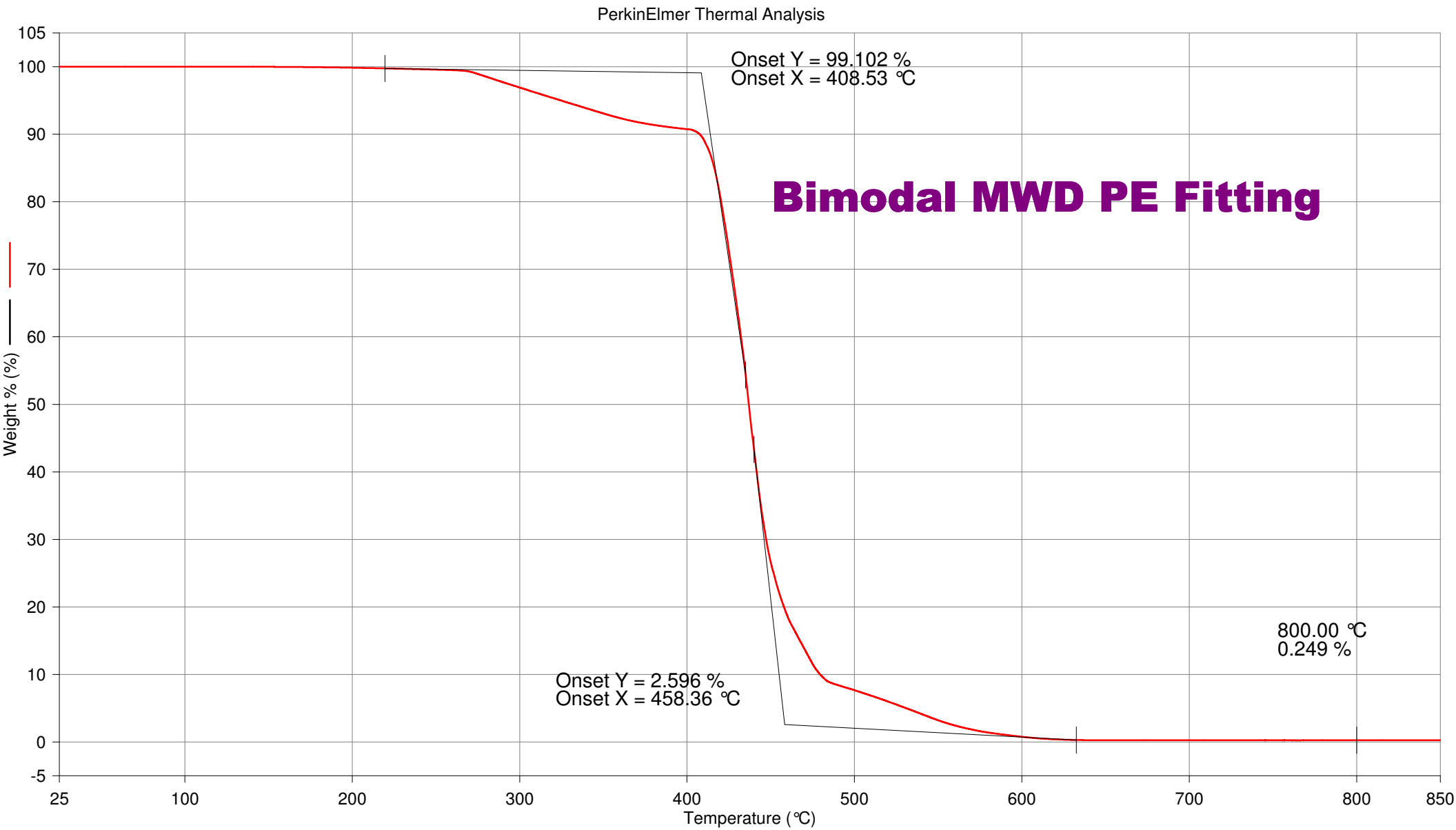
Instrument : Perkin Elmer Pyris 1 TGA
 Test Atmosphere : Air
 Flow Rate : 35 ml/min
 Calibration Procedure : Calibrated vs. Magnetic Transitions Of Alumel, Nickel, and Perkalloy
 Pre-Analysis Purge Time : 5 minutes
 Heating Rate : 10°C/min
 Starting Temperature : 25°C
 Final Temperature : 850°C

Sample Name : **Bimodal MWD PE Fitting**

Temperature (°C)	% Weight	Temperature (°C)	% Weight	Temperature (°C)	% Weight
30	100.00	320	95.37	610	0.53
40	100.00	330	94.59	620	0.39
50	100.00	340	93.83	630	0.30
60	100.00	350	93.08	640	0.27
70	100.00	360	92.39	650	0.27
80	100.01	370	91.82	660	0.27
90	100.01	380	91.39	670	0.26
100	100.01	390	91.04	680	0.26
110	100.01	400	90.76	690	0.25
120	100.01	410	89.20	700	0.25
130	100.00	420	80.57	710	0.25
140	100.00	430	64.10	720	0.25
150	99.99	440	43.29	730	0.25
160	99.97	450	26.62	740	0.25
170	99.95	460	18.63	750	0.25
180	99.93	470	13.84	760	0.25
190	99.90	480	9.87	770	0.25
200	99.86	490	8.43	780	0.25
210	99.81	500	7.67	790	0.25
220	99.75	510	6.86	800	0.25
230	99.70	520	5.99	810	0.25
240	99.63	530	5.09	820	0.25
250	99.57	540	4.15	830	0.26
260	99.50	550	3.22	840	0.26
270	99.28	560	2.44	850	0.27
280	98.53	570	1.85		
290	97.71	580	1.39		
300	96.92	590	1.06		
310	96.14	600	0.77		

Filename: C:\Program Files\Pyris\Data\3394-02.tg1d
Operator ID: Teresa
Sample ID: P20143394 National Transportation Safety
Sample Weight: 9.067 mg
Initial Purge Gas: Nitrogen
Comment:

P20143394 National Transportation Safety: 3394-02.tg1d
Weight % (%) : Step: 1



9/16/2014 11:03:38 AM

1) Heat from 25.00 °C to 860.00 °C at 10.00 °C/min