

Eden Research Laboratory

To: Cocona

Date: December 31, 2019

From: Thomas Poth

Number of pages including cover: 2

Regarding: ASTM D5511 study for Cocona Sample (2072, 2074 & 2075)-341 days

Up-

2412 Princeton NE, Suite E

Albuquerque, NM 87107

T 505.508.3994

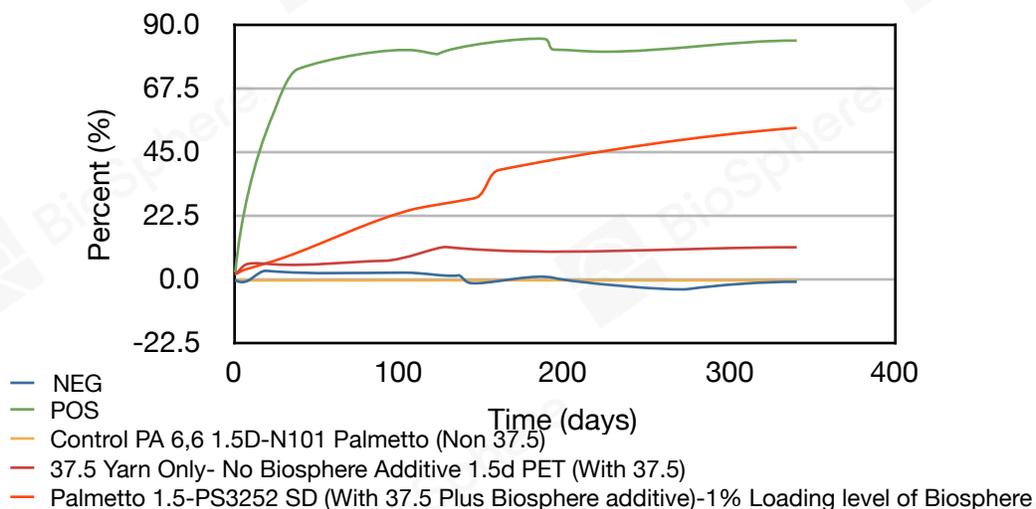
M 505.550.9316

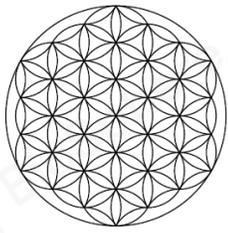
thomas.poth@edenresearchlab.com

	Inculum	Negative	Positive	Control PA 6,6 1.5D-N101 Palmetto (Non 37.5)	37.5 Yarn Only- No Biosphere Additive 1.5d PET (With 37.5)	Palmetto 1.5-PS3252 SD (With 37.5 Plus Biosphere additive)-1% Loading level of Biosphere
Cumulative Gas Volume (mL)	1429.8	1383.6	9573.9	1291.0	3876.1	12368.8
Percent CH <sub>4</sub> (%)	45.6	42.0	40.5	54.3	37.8	49.0
Volume CH <sub>4</sub> (mL)	651.6	580.9	3875.3	701.6	1464.6	6061.5
Mass CH <sub>4</sub> (g)	0.47	0.41	2.77	0.50	1.05	4.33
Percent CO <sub>2</sub> (%)	38.6	39.4	41.9	38.9	38.9	36.7
Volume CO <sub>2</sub> (mL)	552.0	544.7	4009.5	502.3	1508.6	4542.0
Mass CO <sub>2</sub> (g)	1.08	1.07	7.88	0.99	2.96	8.92
Sample Mass (g)	10	10	10	15.0	13.0	15
Theoretical Sample Mass (g)	0.0	8.6	4.2	9.3	8.1	9.3
Biodegraded Mass (g)	0.64	0.60	4.22	0.64	1.59	5.68
Percent Biodegraded (%)		-0.5	84.8	0.0	11.7	54.0
* Adjusted Percent Biodegraded (%)		-0.6	100.0	0.0	13.8	63.6

\* Outside of the ASTM D5511 method and on the assumption that the positive control (Cellulose) will fully biodegrade, all value have been proportionally adjusted.

### Biodegradation





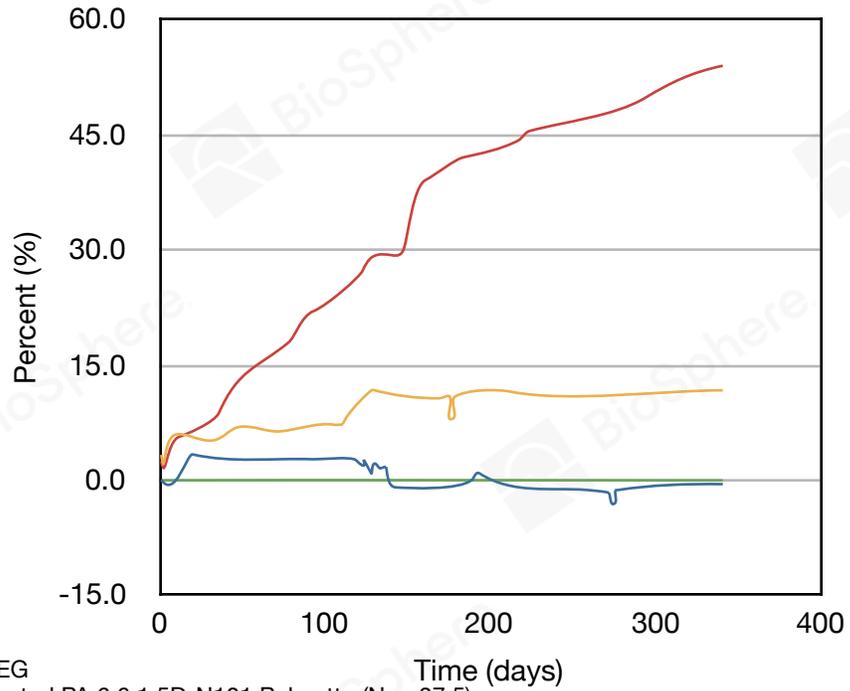
Eden Research Laboratory

Up-

2412 Princeton NE, Suite E  
Albuquerque, NM 87107  
T 505.508.3994  
M 505.550.9316

thomas.poth@edenresearchlab.com

## Biodegradation



- NEG
- Control PA 6,6 1.5D-N101 Palmetto (Non 37.5)
- 37.5 Yarn Only- No Biosphere Additive 1.5d PET (With 37.5)
- Palmetto 1.5-PS3252 SD (With 37.5 Plus Biosphere additive)-1% Loading level of Biosphere