

Determining the amount of biobased (renewable resource) content in “BioBag” film

Background: “BioBag”, is a 100% compostable and 100% biodegradable bag. Main applications for this product are kitchen bags and yard bags. Advertising for “BioBag”, claims the bag is constructed of corn starch, vegetable oil and other renewable resources. Main advertising slogan for “BioBag” is, “Changing the world without changing the Earth”. This gives the impression of a 100% biobased/renewable resource derived product. An evaluation of the amount of biobased/renewable resource content of the product, “BioBag” is sought.

Purpose: Determine the amount of biobased/renewable resource content in “BioBag” film.

Method: Wallac rackbeta liquid spectrophotometer analyzation
Quantulus 1220 Ultra Low Level Liquid Scintillation Spectrometer analyzation

Materials: “BioBag” kitchen bag, 10 liter
“BioBag” yard bag, 120 liter
Wallac rackbeta liquid spectrophotometer
Quantulus 1220 Ultra Low Level Liquid Scintillation Spectrometer

Procedure: The above tests were performed according to standard procedures for each.

Results:

See Attached

Conclusion:

- (1) The renewable resource content in the product “BioBag” kitchen bag, is 24%, much less than what is advertised.
- (2) The renewable resource content in the product “BioBag” yard bag, is 31%, much less than what is advertised.

Project #: 06-037-1125



Christopher J. Eastoe, Ph.D.
Staff Scientist
520-621-1638 (office)
520-621-2672 (fax)
eastoe@geo.arizona.edu (e-mail)

THE UNIVERSITY OF
ARIZONA
TUCSON ARIZONA

Radiocarbon Laboratory
Department of Geosciences
Gould-Simpson Building
Tucson AZ 85721-0077
USA

April 10, 2006

Mr. Bob Berg
CORTEC Laboratories
4119 White Bear Parkway
St. Paul MN 55110

Dear Mr. Berg:


Here are the results for the samples you submitted in March.

A-number	Sample	C14 content, percent modern carbon (pMC)	Biobased content, %*	$\delta^{13}\text{C}$, ‰
14198	Biobag 120 L	33.0 ± 0.4	31	-26.3
14199	Biobag 10 L	25.1 ± 0.3	24	-27.3

* Using the mean pMC, and assuming that 100% biobased content would correspond to 105.0 pMC, the value we measured for rural atmosphere (without urban contamination effects) in Arizona in 2005.

The data are corrected for $\delta^{13}\text{C}$.

Best wishes with your research!


Chris Eastoe
Staff Scientist

WALLAC
RACK
BETA

LI

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Q
1220 LIQUID
SCINTILLATION
QUANTULUS
SPECTRO
PHOTOMETER

Christopher J. Eastoe
Staff Scientist
520-621-1638 (office)
520-621-2672 (fax)
eastoe@geo.arizona.edu (e-mail)



Laboratory of Isotope Geochemistry
Department of Geosciences
Gould-Simpson Building
Tucson AZ 85721-0077
USA

Tax ID 866004791

INVOICE
University of Arizona
Department of Geosciences

Date: April 10, 2006

Invoice Number: 061004cce

Bill to:

CORTEC Laboratories
Attn: Mr. Bob Berg
4119 White Bear Parkway
St. Paul MN 55110

2 C14 measurements @ \$225 = \$450 total

Reference: PO # 57215

Account: 248440

Please make check payable to *The University of Arizona* and mail to:
U of A Geosciences Department
Gould-Simpson Building, Room # 208
Tucson AZ 85721-0077 USA

Note regarding wire transfers: Please include the requested reference information. Without this, the transfer may prove difficult to deliver.

Invoice for services: A14198, 14199