

केंद्रीय पेट्रोसायन अभियांत्रिकी एवं  
प्रौद्योगिकी संस्थान (सिपेट)

(पूर्व में सेन्ट्रल इंस्टिट्यूट ऑफ प्लास्टिक्स इंजीनियरिंग एण्ड टेक्नोलॉजी)  
इंस्टिट्यूट ऑफ पेट्रोकेमिकल्स टेक्नोलॉजी (आई.पी.टी.)  
रसायन एवं पेट्रोसायन विभाग  
रसायन एवं उर्वरक मंत्रालय, भारत सरकार  
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INTERIM REPORT

CIPET/Kochi-IR/TR. No. 23367

Date: 09.08.2023

Name & Address of the Party: M/s. Bibo Biotech Pvt. Ltd.  
Plot No. 43, Sy No. 286, 287, 288, Ram Reddy Nagar,  
Jeedimetla (V), Quthbullapur (M),  
Medchal-Malkajgiri District, Telangana.

Sample Details: Biodegradable Bags (as declared by the party)

Date of receipt of sample : 15.02.2023  
Date(s) of performance of test : 13.03.2023 to 07.08.2023


Sl. No.	Property	Test method / Standard	Unit	Results obtained	Specified Requirements
1.	Material Identification	FTIR / DSC	--	Poly(butylene-Adipate-co-terephthalate) (PBAT)	--
2.	Disintegration (Dry mass remains in 2mm sieve after 84 days)	Cl. 6.2 of ISO 17088-2021	%	9.48	Not more than 10% of its original dry mass
3.	Ultimate Aerobic Biodegradation (with reference to 100% degradation of positive reference)	Cl. 6.3 of ISO 17088-2021 ISO 14855-1	%	90.76 (At the end of 148 days)	> 90% (At the end of the test period not more than 180 days)

**Comments:** The submitted sample of Biodegradable Bags (as stated by the party) complies to the requirements of Cl. 6.2 & 6.3 of ISO 17088-2021.

**Note:**

- The submitted sample is exposed under controlled compost condition as per ISO 14855-1 and at the end of 148 days, the cumulative biodegradation is estimated as 90.76% with reference to the degradation of the cellulose (positive reference).
- The following tests are under progress as per the standard ISO 17088-2021
  - Plant growth test as per Cl. No. 6.4.3.
  - Earthworm toxicity test as per Cl. 6.4.4 and 6.4.5.
  - Heavy metal analysis as per Cl. No. 6.5.2.
- The Test report will be issued after the completion of all the tests.
- The interim report is only valid till the issue of Test Report.

Dr. Manjula K.S.  
Sr. Technical Officer  
Authorized Signatory

  
Dr. K.P. Bhuvana  
Manager (Technical)  
Authorized Signatory

\*\*\*End of the Report\*\*\*

केन्द्र : अहमदाबाद, अमृतसर, औरंगाबाद, अगरतला, बर्ही, बालासोर, बेंगलूरु, भोपाल, भुवनेश्वर, चंद्रपुर, चेन्नई, देहरादून, गुवाहाटी, ग्वालियर, हैदराबाद, हाजीपुर, हल्दिया, इम्फाल, जयपुर, कोच्चि, कोरबा, लखनऊ, मद्रुरै, मुरथल, मैसुरु, रायपुर, राँची, वलसाड, वाराणसी, एवं विजयवाडा

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