

केंद्रीय पेट्रोसायन अभियांत्रिकी एवं  
प्रौद्योगिकी संस्थान (सिपेट)

(पूर्व में सेन्ट्रल इंस्टिट्यूट ऑफ प्लास्टिक्स इंजीनियरिंग एण्ड टेक्नोलॉजी)  
इंस्टिट्यूट ऑफ पेट्रोकेमिकल्स टेक्नोलॉजी (आई.पी.टी.)

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INTERIM REPORT

CIPET/Kochi-IR/TR. No.23842

Date: 14.12.2023

Name & Address of the Party: M/s. Nisarga Biodegradable Products  
11-5-245/2, Moosapet, Kukatpally (M)  
Medchal- Malkajgiri District

Sample Details: Biodegradable and Compostable Film (as declared by the party)

Date of receipt of sample : 30.05.2023  
Date(s) of performance of test: 03.07.2023 to 14.12.2023  
Unique Sample ID : 2305128

Sl. No.	Property	Test method / Standard	Unit	Results obtained	Specified Requirements as per ISO 17088:2021
1.	Material Identification	FTIR / DSC	--	Poly(lacticacid)(PLA) and Poly(butylene-Adipate-co-terephthalate) (PBAT)	--
2.	Disintegration (Dry mass remains in 2mm sieve after 84 days)	ISO 20200:2015	%	8.27	Not more than 10% of its original dry mass
3.	Ultimate Aerobic Biodegradation (with reference to 100% degradation of positive reference)	ISO 148551:2012	%	92.25 (At the end of 155 days)	> 90% (At the end of the test period not more than 180 days)

**Comments:** The submitted sample of Biodegradable and Compostable Film (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 155 days, the cumulative biodegradation is estimated as 92.25% 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.
- Details of test subcontracted –SI No. 2 & 3..

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

Dr. S. Anbudayanidhi  
Manager (Technical)  
Authorized Signatory

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

केन्द्र : अहमदाबाद, अमृतसर, औरंगाबाद, अमरावती, बन्दी, बालासोर, बेंगलूरु, भोपाल, भुवनेश्वर, चंद्रपुर, चेन्नई, देहरादून, गुवाहाटी, ग्वालियर, हैदराबाद, हाजीपुर, हल्दिया, इम्फाल, जयपुर, कोच्चि, कोरबा, लखनऊ, मद्रुरै, मुरथल, मैसूरु, रायपूर, राँची, वलसाड, वाराणसी, एवं विजयवाडा

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