

केंद्रीय पेट्रोरसायन अभियांत्रिकी एवं
प्रौद्योगिकी संस्थान(सिपेट)

(पूर्व में केंद्रीय प्लास्टिक्स इंजीनियरिंग एवं तकनीकी संस्थान)
रसायन एवं पेट्रोरसायन विभाग

रसायन एवं उर्वरक मंत्रालय, भारत सरकार
प्लॉट नं. जे - 3/2, एम.आई.डी.सी औद्योगिक क्षेत्र,
चिकलथाना, औरंगाबाद. - 431006

फोन. : 0240 -2478302-334

ईमेल : aurangabad@cipet.gov.in

वेबसाईट : www.cipet.gov.in

मुख्यालय : सिपेट, गिण्डी, चेन्नई-६०० ०३२



Central Institute of Petrochemicals
Engineering & Technology (CIPET)

(Formerly Central Institute of Plastics Engineering & Technology)

Department of Chemicals & Petrochemicals,
Ministry of Chemicals & Fertilizers, Govt. of India

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कोरियर / स्पीड पोस्ट / बाय हैन्ड

Courier / Speed Post / By Hand

क्र.:सिपेट : सी एस टी एस/औ.बाद/परीक्षण/कार्य आदेश/(1489/2024-25)/2025-26/207

दिनांक: 28.04.2025

प्रति,

TGP Bioplastics Pvt. Ltd.

Plot No. 506/2,

Rajarambapu Institute of Technology,
Islampur, Tal- Walwa, Dist - Sangli- 415414.

विषय : परीक्षण हेतु।

संदर्भ : Email / Letter.

दिनांक: 28.10.2024 / 15.02.2025.

महोदय,

कृपया हमारी परीक्षण रिपोर्ट क्रमांक : 32920 along with Annexure दिनांक: 25.04.2025 प्राप्त करें।

संलग्न कस्टमर फीड बैक फार्म भरकर वापस भेजने का कष्ट करें।

धन्यवाद,

भवदीय,


निदेशक एवं प्रमुख

संलग्न : उपरोक्तानुसार

केंद्र : अगरतला, अहमदाबाद, अमृतसर, औरंगाबाद, बद्दी, बालासोर, बैंगलुरु, भोपाल, भुवनेश्वर, चंद्रपुर, चेन्नई, देहरादून, गुवाहाटी, ग्वालियर, हाल्डिया, हैदराबाद, हाजीपुर, इम्फाल, जयपुर, कोच्चि, कोरबा, लखनऊ, मदुरै, मुरथल, मैसूरू, नवसारी, रायपुर, राँची, वाराणसी एवं विजयवाडा।

Centres : Agartala, Ahmedabad, Amritsar, Aurangabad, Baddi, Balasore, Bengaluru, Bhopal, Bhubaneswar, Chandrapur, Chennai, Dehradun, Guwahati, Gwalior, Haldia, Hyderabad, Hajipur, Imphal, Jaipur, Kochi, Korba, Lucknow, Madurai, Mysuru, Navsari, Raipur, Ranchi, Varanasi & Vijayawada.

सिपेट : सेन्टर फॉर स्किलिंग एण्ड टेक्निकल सपोर्ट (सी एस टी एस)

रसायन एवं पेट्रोरसायन विभाग

रसायन एवं उत्करक मंत्रालय, भारत सरकार

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वेबसाईट : www.cipet.gov.in

मुख्यालय : सिपेट, गिर्णी, चेन्नै-600 032



सिपेट CIPET



CIPET : CENTRE FOR SKILLING AND TECHNICAL SUPPORT (CSTS)

Department of Chemicals & Petrochemicals,
Ministry of Chemicals & Fertilizers, Govt. of India

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श्रेणी / SERIES : A

क्र. / No. 29108

प्लास्टिक्स परीक्षण केंद्र
PLASTICS TESTING CENTRE

परीक्षण रिपोर्ट/ Test Report

Issued to:

TGP Bioplastics Pvt. Ltd.
Plot No. 506/2,
Rajarambapu Institute of Technology,
Islampur, Tal- Walwa, Dist – Sangli- 415414.

Test Report No : 32920
Dated : 25.04.2025
Your Ref : Email / Letter.
Dated : 28.10.2024 / 15.02.2025.

Page No. 1 of 3

Test Report

PART - A

PARTICULARS OF SAMPLE SUBMITTED

a) Name of Sample	:	"Compostable Plastic Films and Products" as stated by party
b) Grade/Variety/Type/Size/Class	:	Film Sample - (As indicated on letter)
c) Declared value, if any	:	Materials : Starch, PLA, PBAT - (As indicated on declaration letter ref. OUT/Admin/2025/63 date: 15.02.2025)
d) Code No	:	Nil
e) Batch No. and Date of Manufacturing	:	24.10.2024 - (As indicated on letter)
f) Quantity	:	01 kg (approx)
g) Mode of Packing	:	Packed in with plastic bag
h) Sealed or not	:	Not Sealed
i) Date of Receipt	:	29.10.2024
j) Date (s) of Performance of Test	:	28.10.2024 to 25.04.2025
k) Any other information	:	Compostability test sample TGP Bioplastic Pvt. Ltd. - (As manuscripted on sample packing)

PART - B

SUPPLEMENTARY INFORMATION

i) Reference to sampling procedure	:	Samples supplied by Party
ii) Supporting documents for the measurement taken and results derived	:	As given in Part C
iii) Deviation from the test method as prescribed in relevant work instruction, if any	:	Nil

25/4/25
25/4/25

25/4/25



Issued to:

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PART-C					
Test Result					
Sl. No	Name of test	Test Method	Unit	Test Result	Specified requirements
01	Material Identification	FTIR / DSC	--	Polybutylene Adipate co Terephthalate Based Polymer	Starch, PLA, PBAT (As declared by party)
02	Disintegration (Dry mass remains in 2mm sieve after 84 days)	Cl. 6.2 of IS/ISO 17088 : 2021	%	5.04	Not more than 10
03	Ultimate aerobic Biodegradation (with reference to 100% degradation of positive reference)	Cl. 6.3 of IS/ISO 17088 : 2021	%	92.73 % (At the end 105 days)	>90% (At the end of the test period not more than 180 days)
	Plant Growth study				
04	Monocotyledon (corn) % Seed emergence Dicotyledon (chickpeas) % Seed emergence	Cl 6.4.3 IS/ISO 17088 : 2021	%	92	>90
			%	92	>90
05	*Acute Ecotoxic Effects of Earthworm				
a.	Survival of adult earthworm at the end of 7 days	IS/ISO 17088 : 2021 Cl.No.6.4.4	%	100	>90
b.	Survival of adult earthworm at the end of 14 days		%	95	>90
c.	Biomass end of the 14 days		%	96	>90
06	Chronic ecotoxic effects to earthworm				
a.	Survival of adult earthworm at the end of 28 days	IS/ISO 17088 : 2021 Cl.No.6.4.5	%	95	>90
b.	Survival of adult earthworm at the end of 56 days		%	94	>90
c.	Offspring at the end of 56 days		%	97	>90
d.	Biomass end of the 56 days		%	95	>90

Note: The detailed observation on Biodegradability test is enclosed as Annexure.

1
25/4/25

80
25.04.2025



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Test Result					
Sr. No.	Name of the test	Test Method/ Standard	Unit	Results Obtained	Specified Requirements
07	*Heavy metals Concentration	Cl.No. 6.5.2 of IS/ISO-17088:2021	mg/l	0.3642	10
1.	Arsenic (As)			0.0769	300
2.	Copper (Cu)			0.0663	50
3.	Nickel (Ni)			0.5384	1000
4.	Zinc (Zn)			--	--
5.	Cobalt(Co)			0.0264	50
6.	Chromium (Cr)			0.0006	--
7.	Molybdenum (Mo)			0.0000	0.15
8.	Mercury (Hg)			0.0001	5
9.	Cadmium (Cd)			0.0583	100
10.	Lead (Pb)			0.0005	--
11.	Selenium (Se)				

(*) – Based on the solid waste management Rules, 2016 notified on 08th April 2016 by Ministry of Environment, Forests & Climate Change, and Government of India.

PART-D
 Remarks: Nil

NOTE :

- 01 This Test Report/ Certificate are issued only for the samples submitted to the laboratory.
- 02 The results stated above related only to the items tested.
- 03 The quality of the subsequent production lot has to be ensured by the purchaser.
- 04 This Test Report shall not be reproduced except in full without the written approval of the laboratory.
- 05 Any anomaly/discrepancy in this report should be brought to the notice of the laboratory within 30 days from the date of issue.
- 06 Subcontracted Tests (if any): *Heavy metals Concentration Test Subcontracted from CIPET: SARP (APDDRL), Bengaluru.

Reviewed by / Authorized Signatory
 M.V. Kranthi Kumar
 Sr. Tech. Asst.

Authorised Signatory
 Kirankumar V. Koli
 Technical Officer

