

केंद्रीय पेट्रोसायन अभियांत्रिकी एवं प्रौद्योगिकी संस्थान(सिपेट)

(पूर्व में केंद्रीय प्लास्टिक्स इंजीनियरिंग एवं तकनीकी संस्थान)
रसायन एवं पेट्रोसायन 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
वेबसाइट : 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
Plot No. J-3/2, MIDC Industrial Area,
Chikalthana, Aurangabad - 431006.
Tel. : 0240-2478302-334
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Head Office : CIPET, Guindy, Chennai-600 032



कोरियर / स्पीड पोस्ट / बाय हैंड
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,

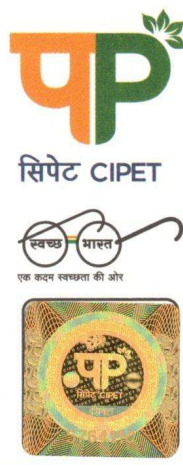
भवदीय,

निदेशक एवं प्रमुख

संलग्न : उपरोक्तानुसार

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

रसायन एवं पेट्रोसायन विभाग
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मुख्यालय : सिपेट, गिण्डी, चेन्नै-600 032



**CIPET : CENTRE FOR SKILLING AND
TECHNICAL SUPPORT (CSTS)**

Department of Chemicals & Petrochemicals,
Ministry of Chemicals & Fertilizers, Govt. of India
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Head Office : CIPET, Guindy, Chennai-600 032

श्रेणी / SERIES : A

क्रं / 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

25-04-2025



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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	Cl 6.4.3 IS/ISO 17088 : 2021	%	92	>90	
	Dicotyledon (chickpeas) % Seed emergence		%	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 month
25/4/25

[Signature]
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				
1.	Arsenic (As)	CI.No. 6.5.2 of IS/ISO-17088:2021	mg/l	0.3642	10
2.	Copper (Cu)			0.0769	300
3.	Nickel (Ni)			0.0663	50
4.	Zinc (Zn)			0.5384	1000
5.	Cobalt(Co)			--	--
6.	Chromium (Cr)			0.0264	50
7.	Molybdenum (Mo)			0.0006	--
8.	Mercury (Hg)			0.0000	0.15
9.	Cadmium (Cd)			0.0001	5
10.	Lead (Pb)			0.0583	100
11.	Selenium (Se)			0.0005	--
(*) – Based on the solid waste management Rules, 2016 notified on 08 th 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.

Authorized Signatory
Kirankumar V. Koli
Technical Officer