## SCHOOL FOR ADVANCED RESEARCH IN PETROCHEMICALS (SARP)-LARPM CENTRAL INSTITUTE OF PETROCHEMICALS ENGINEERING & TECHNOLOGY (CIPET) BHUBANESWAR

## **DEVELOPMENTAL CHARGES**

SI. No.	Analytical Instrument Facility	Developmental
1	Identification of Delumer/Directio Materials	
1.	Transmission Flostron Microscony (TEM)	
2.	Sample proparation for TEM ( by Cryamicrotomy)	2000 /Sample
	Elemental analysis (EDS)	2000 /Sample
2	Seepping Electron Microscony (SEM)	2000/Sample
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<u> </u>	Col permeetion obromotography (CPC)	
<u> </u>	Ger permeation chroniatography (GPC)	
0.	Atomic Force Microscope (AFM)	2000/ Sample
7.	Atomic Porce Microscope (APM)	
<u>ð.</u>	Dynamic Mechanical Analysis (DMA)	2000/Sample
9.	• (-)70 to 300 °C @ 10 °C /min	2000/Sample
	Thermo Gravimetric Analysis (TGA)	
10.	• RT-800 C @ 10 °C /min	2000/Sample
11.	X-Ray Diffraction (XRD)	3000/Sample
12	Parallel Plate Rheometer	1200/Sample
13.	FTIR spectroscopy	2000/Sample
14	CHNS/O Elemental Analyzer	3500/Sample
17.	Thermal Conductivity Tester	1200/Sample
15.	(Guarded Hot Plate)	1200/04/10/0
16.	Environmental Test Chamber	200 /h
17.	Melt Compounding with Micro Compounder	2500 /Batch
	Universal Testing Machine (UTM) (3 nos) (Tensile/ Flexural/ Compression)	
18.	Room Temp (23 °C)	1100/Sample
	Below Ambient Temperature	2000/Sample
	Above Ambient Temperature (50°C to 300°C)	2000/Sample
19.	Weather-o-meter (Xenon Exposure)	190/hr For first 100 hrs 175/hr For subsequent hours
20.	Weather-o-meter (UV Exposure )	65/hr For first 100 hrs 40/hr For subsequent hours
21.	Compression Moulding	1000/ Batch
22.	Density	500/Sample
23.	Twin Screw Extruder (Haake Polylab OS	3000(upto 4 hrs)
	(with pelletizer @ 100 gm per batch)	4260(per shift,8 hrs)
24.	Melt Compounding using Haake Polylab OS (Batch Mixer @ 50 gm per batch)	2500 (upto 2kg per grade per batch) 850 (for additional compounding per
25.	Twin Screw Extruder (OMEGA-25)	3000 (Upto 4hrs) 4260(Per shift 8hrs)

26.	Water Vapour Transmission Rate (WVTR)	1200/Sample
27.	Oxygen Transmission Rate (OTR)	2000/Sample
28.	Melt Flow Index (MFI)	1100/Sample
29.	Flammability (as per UL Standards)	2900/Sample/type
30.	Sample Preparation by:- • Contour cutter • Injection Moulding (Micro Injection Jet )	500(For 5 Nos.) 2500(For 5 Nos.)
31.	Impact Test <ul> <li>Notched</li> <li>Un-notched</li> </ul>	1100/Sample
32.	Heat Deflection Temp(HDT)	1100/Sample
33.	Vicat Softening Temperature (VST)	1100/Sample
34.	Haze/Luminous Transmittance	700/Sample
35.	Spin coater	700/Sample
36.	Cone Calorimetric studies (03nos. of Specimen) for single heat flux	20000/Sample
37.	<ul> <li>Fatigue Test</li> <li>Upto 1000 Cycles</li> <li>Subsequent 500 cycles @Rs.250</li> </ul>	875/Sample 250/Sample
38.	Gas Chromatography(GC)	3000/Sample
39.	Toxicity Test	50000/Sample
40.	Spread of Flame	7500/Sample
41.	Smoke Density	7500/Sample
42.	Contact Angle measurement	1500/Sample
43.	Particle Size Analysis	2000/Sample
44.	High Temperature GPC	10000/Sample
45.	Biodegradation as per ISO 17088:2012 (Specifications for compostable plastics under composting condition. (aerobic biodegradability)	3,75,000 Per Sample
46.	ISO 17556:2019- Biodegradability of plastic materials in soil (measuring the oxygen demand in a respirometer or the amount of carbon dioxide evolved)	Rs. 3,75,000/- for initial 06 months. Additional charges of Rs. 32,000/- shall be charged per month as per the test demands not more than 02 years

• The charges for Liquid Nitrogen shall be as per actual to fulfill the test requirement for Mechanical, DMA, cryo-milling, sample preparation through Cryomicrotomy for TEM, etc. (Subject to the availability Liquid Nitrogen)

The Charges listed above do not include cost of consumables or other charges for value added services. Rate of value added services and consumables are listed below. *Note:* 

- 1. GST as per the applicable rates.
- 2. The minimum test charges Rs.1500/- per assignment (excluding taxes)
- 3. Test charges for overseas test assignment at three times of the test charges and payment be in terms of USD.
- 4. Urgent samples on an immediate basis can be done at double the above mentioned rates.
- 5. The analytical data/spectra are provided only for research/ development purposes. These cannot be used as certificates in legal disputes.

6. Developmental test charges are payable in advance, by crossed bank draft in favour of 'CIPET LARPM Bhubaneswar' payable at Bhubaneswar

For transferring fund:

Account No.: 34640722811 Name of Bank: State Bank of India Branch Name: Infocity Branch, Bhubaneswar IFSC Code: SBIN0010133

- 7. Samples and payment should be sent preferably in the same cover. Separate samples should be sent for different analysis. Samples will not be analyzed till payment is received.
- 8. In all correspondence related to analysis our reference number must be mentioned.
- 9. Radio-active material should be clearly mentioned and handed over personally.
- 10. Unstable and explosive compounds are not accepted for analysis.
- 11. Services are rendered to only those users who regularly give us feed-back about the end-use of the results, e.g., thesis, patent, process, publication etc.
- 12. Interpretation of spectra is not undertaken normally. In special cases this service can be provided on payment of extra charges.

All Communications should be addressed to

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