

***Laboratory for Advanced Research of Polymeric Materials (LARPM)***  
**CENTRAL INSTITUTE OF PLASTICS ENGINEERING AND TECHNOLOGY (CIPET)**  
**BHUBANESWAR**

**DEVELOPMENTAL CHARGES**

<b>SL. NO</b>	<b>ANALYTICAL INSTRUMENT FACILITY</b>	<b>DEVELOPMENTAL CHARGES (Rs.)</b>
1	Identification of Polymer/Plastic Materials	8500/Sample
2	Transmission Electron Microscopy (TEM) Sample preparation for TEM ( by Cryomicrotomy) Elemental analysis (EDS)	3000 /Sample 2000 /Sample 5000 /Sample
3	Scanning Electron Microscopy (SEM)	3000/Sample
4	Hot stage Optical Microscope	1000/Sample
5	Gel permeation chromatography (GPC)	3000/Sample
6	Fuel cell (single stack) performance analysis	2500 / sample
7	Atomic Force Microscope (AFM)	3000/ sample
8	Dynamic Mechanical Analysis (DMA)	2000 /Sample
9	Differential Scanning Calorimetry (DSC) • (-70 to 300 C @ 10 C /min	2000/Sample
10	Thermo Gravimetric Analysis (TGA) • RT-800 C @ 10 C /min	2000/Sample
11	X-Ray Diffraction (XRD)	3000/Sample
12	Parallel Plate Rheometer	1100/Sample
13	FTIR spectroscopy	2000/Sample
14	CHNS/O Elemental Analyzer	2000/Sample
15	Thermal Conductivity Tester (Guarded Hot Plate)	1200/Sample
16	Environmental Test Chamber	200 /h
17	Melt Compounding with Micro Compounder	2500 /Batch

18	Universal Testing Machine (UTM) (3 nos) (Tensile/ Flexural/ Compression)  Room Temp (23 °C) Below Ambient Temperature Above Ambient Temperature (50°C to 300°C)	1100/Sample 2000/Sample 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 (with pelletizer @ 100 gm per batch)	3000(upto 4 hrs) 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 kg)
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)	1200/Sample
28	Melt Flow Index (MFI)	1100/Sample
29	Flammability (as per UL Standards)	2900/Sample
30	Sample Preparation by:- <ul style="list-style-type: none"> <li>• Contour cutter</li> <li>• Injection Moulding (Micro Injection Jet )</li> </ul>	500(For 5 Nos.) 2000(For 5 nos.)
31	Impact Test <ul style="list-style-type: none"> <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	15000 / Sample
37	Biodegradation as per ISO 17088(For 180 days of Compost and 60 days of read generation)	3,75,000 Per Sample
38	Fatigue test • Upto 1000 cycles • Subsequent 500 cycles @ Rs.250	875/ Sample 250/ Sample
39	Gas Chromatography(GC)	3000/ Sample
40	Toxicity Test	25000/Sample
41	Spread of Flame	2900/Sample
42	Smoke Density	2900/Sample

- ***The charges for Liquid Nitrogen (20 litres) @ Rs. 6000/- is subject to requirement and availability for cryogenic conditions In Case of DMA, sample preparation through Cryomicrotomy for TEM etc.***

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. Service Tax at appropriate Govt. rates to be paid by the users.

**Universities, Educational institutions and National Laboratories students/research Scholar are eligible for 50% discount and registered small scale industries are entitled for 25% discount on test charges only excluding specimen preparation and conditioning charges .**

**However special Discounts up to 50% can be provided based on bulk volume of business and nature of assignment.**

*Note:*

1. As per Govt. norms Service Tax (15%) will be charged on the analysis charges.
2. Urgent samples on an immediate basis can be done at double the above mentioned rates.
3. The analytical data/spectra are provided only for research/ development purposes. These cannot be used as certificates in legal disputes.

5. **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**

6. *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.*
7. In all correspondence related to analysis our reference number must be mentioned.
8. Radio-active material should be clearly mentioned and handed over personally.
9. Unstable and explosive compounds are not accepted for analysis.
10. 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.
11. Research fellows and students are advised to send their application and samples through their Supervisor or Head of Department. The request should be on University/ College/Institute letter head.
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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