

## TESTING CHARGES - COE INDUTECH CAPABILITIES

### (NABL accredited laboratory)

ADDRESS: PSGTECHS COE INDUTECH, Avinashi Road, Neelambur, Coimbatore - 641 062, Tamilnadu, INDIA

Version: 2019 -2020 01.01.2020

(Email : (i) testing.int@psgtech.ac.in, PHONE : +91 9003939945 & (ii) testing1.int@psgtech.ac.in, PHONE : +91 7200023419 )

### I. PHYSICAL TESTING LAB

| # | Test          | Details  | Charges                   | Industry     | Research Scholars | Students |
|---|---------------|--|---------------------------|--------------|-------------------|----------|
|   |               |  |                           | Rs + 18% GST |                   |          |
| 1 | Weight        | Accuracy - 0.01g   | / 5 samples               | 200          | 150               | 120      |
|   |               | Accuracy - 0.0001g   |                           | 400          | 300               | 240      |
| 2 | Thickness     | Measuring thickness for textiles, nonwoven & similar materials   | / sample                  | 500          | 375               | 300      |
|   |               | ASTM D1777, DIN EN ISO 9073-2, EN ISO 5084, EN 964-1   |                           |              |                   |          |
| 3 | Tensile 10 KN | Tensile & Wedge grip, Cycling loading and ply adhesion upto 10 KN upto 200% elongation. (Pull out test, edge crush test, peel bond test etc) | / 5 Specimen ( 1 Sample ) | 1750         | 1300              | 1000     |
|   |               | Tensile testing of a single fibre 100 N and Monofilament up to 1KN (ASTM D 2256)   |                           | 1250         | 900               | 750      |
|   |               | ASTM D3822 (Sample Length : 100mm - 20 Nos)  |                           | 1000         | 750               | 600      |
|   |               | Tensile and Tear upto 2.5 KN upto 200% elongation  |                           | 1000         | 750               | 600      |
|   |               | ASTM D5034 (Sample size: 150mm x 100mm) Spec warp -5 weft - 5  |                           | 1250         | 900               | 750      |
|   |               | ASTM D5035 (Sample size: 150mm x 50mm) Spec warp -5 weft - 5   |                           | 1000         | 750               | 600      |
|   |               | DIN EN ISO 29073-3 (Sample size: 300mm x 50mm) Spec MD-5 CD-5  |                           | 1250         | 900               | 750      |
|   |               | IS 7016 PART-2 (Sample size: 300mm x 50mm) Spec MD-5 CD-5  |                           | 1000         | 750               | 600      |
|   |               | ASTM D 882 - 02 (Sample size: 300mm x 50mm)  |                           | 1000         | 750               | 600      |
|   |               | Compression test - ASTM D695 (Sample size: Length & Width : 12.7 mm Thickness 25.4 mm or Dia 12.7 mm Thickness 25.4 mm )                     |                           | 1000         | 750               | 600      |
|   |               | Flexural Test - ASTM D790 (Sample size:127mm * 12.7mm * 3.2mm) Spec MD-5 CD-5  |                           | 1000         | 750               | 600      |
|   |               | Cyclic loading   | / hr / samples            | 2000         | 1500              | 1200     |
|   |               | Customized test / (Hour Basis test) applicable for only bulk samples   | / sample of 5 specimen    | NA           | 2000              | 2000     |

|   |                     |  |                           |      |      |      |
|---|---------------------|--|---------------------------|------|------|------|
| 4 | Tensile 100 KN      | Tensile test upto 100KN (ASTM D3039 and more)                        | / 5 Specimen ( 1 Sample ) | 2000 | 1500 | 1200 |
|   |                     | DIN EN ISO 10319 (Sample size: 200mm x 200mm) Spec MD-5 CD-5         |                           | 2000 | 1500 | 1200 |
|   |                     | Compression test upto 100KN  |                           | 2000 | 1500 | 1200 |
|   |                     | Ropes Tensile Test upto 50KN (Sample size: 500 mm)                   |                           | 2000 | 1500 | 1200 |
|   |                     | Charge for Video Extensometer (poisson ratio analysis) / specimen    |                           | 1000 | 750  | 600  |
|   |                     | CBR Puncture Test - DIN EN ISO 12236 - 250mm x 250mm                 |                           | 1600 | 1200 | 1000 |
|   |                     | Customized test / (Hour Basis test) applicable for only bulk samples |                           | NA   | 3000 | 3000 |
| 5 | Tear Strength       | ASTM D1424 (Sample size: 100mm x 75mm)<br>size: 63mm x 75mm)         | / sample                  | 500  | 375  | 300  |
| 6 | Auto Burst Testing  | ASTM D 3786 (Sample size: 0.5m x 0.5m)                               |                           | 500  | 375  | 300  |
| 7 | Stiffness           | Measuring the bending rigidity (Sample size: 250 mm x 25 mm)         |                           | 400  | 300  | 250  |
| 8 | Spray Rating Tester | AATCC 22 (Sample size 1 sq.m)<br>(Sample size 1 sq.m)                |                           | 600  | 450  | 360  |
| 9 | GSM                 | ASTM D 3776 (Sample size: 0.5m x 0.5m)                               | / sample                  | 500  | 300  | 200  |
|   |                     | IS 7016 PART-1 (Sample size: 0.5m x 0.5m)                            | / sample                  | 500  | 300  | 200  |
|   |                     |  |                           |      |      |      |

## II. FILTER TESTING LAB

| #  | Test                       | Details   | Charges  | Industry                           | Research Scholars | Students |
|----|----------------------------|---|----------|------------------------------------|-------------------|----------|
|    |                            |   |          | Rs                                 |                   |          |
| 9  | Air Permeability           | ASTM D 737 (Sample size: 250mm x 250mm)                       |          | 500                                | 300               | 200      |
| 10 | Capillary Flow Meter       | CFP (Sample size: 100mm), AIR RESISTANCE (Sample size: 100mm) | / sample | 1500                               | 1200              | 1000     |
|    |                            | FRAZIER GURLY, HYDRO HEAD, ELEVATED TEMP                      |          | 1500                               | 1200              | 1000     |
|    |                            | Flat sheet and also whole filter product                      |          | Charges applicable as per standard |                   |          |
| 11 | Fuel Filter Multi Pass Rig |   |          | Charges applicable as per standard |                   |          |
| 12 | Oil Filter Multi Pass Rig  | Whole filter product  |          | Charges applicable as per standard |                   |          |

## III. INSULATION TESTING LAB

| #  | Test                           | Details   | Charges  | Industry  | Research Scholars | Students  |
|----|--------------------------------|---|----------|-----------|-------------------|-----------|
|    |                                |   |          | Rs        |                   |           |
| 13 | Thermal Conductivity Tester    | ISO 8301 (Sample size : 300mm x 300mm x from 5 mm to 100 mm Thickness ) Density required.   | / hr     | 1600      | 1200              | 1000      |
| 14 | Impedance Tube                 | Sound absorption co-efficient and transmission loss measurement - ISO 10534-2 (Sample size: 29.5 mm & 99.5 mm)<br>* (AB-Absorbency ,TL-Transmission loss) | / sample | *AB -6000 | *AB -4500         | *AB -3500 |
|    |                                | Sample Preparation Charges  |          | *TL -7000 | *TL -5000         | *TL -4000 |
|    |                                | DIN 54345 -1 ( Sample size: 120 mm x 120 mm ) 5 specimen required   |          | 600       | 500               | 500       |
| 15 | Electrical Surface Resistivity |   |          | 1000      | 750               | 600       |

## IV. FIRE TESTING LAB

| #  | Test                    | Details  | Charges  | Industry | Research Scholars | Students |
|----|-------------------------|--|----------|----------|-------------------|----------|
| 16 | Horizontal Flammability | IS15061 (Sample size: 356mm x 60mm) Spec warp -5 weft - 5  |          | 1200     | 900               | 750      |
| 17 | Inclined Flammability   | ASTM D 1230 (Sampe size: 150 mm x 50mm) Spec warp -5 weft - 5<br>IS 11871 (Sampe size: 150 mm x 50mm) Spec warp -5 weft - 5  |          | 1200     | 900               | 750      |
| 18 | Vertical Flammability   | ISO 6941 (Sample size: 200mm x 80mm) Spec warp -5 weft - 5<br>ISO 6940 (Sample size: 560mm x 170mm) Spec warp -5 weft - 5<br>ASTM D6413 (Sample size: 300mm x 76mm) Spec warp -5 weft -5<br>DIN 53438-Part-3 (Sample size: 230 mm x 90 mm) Spec warp -5 weft -5<br>Volvo 5031-19, Volvo 104-0001, FMVSS 302 & SS-ISO 3795 ( Sample Size : 102mm x 355mm x T- Max 13mm) | / sample | 1500     | 1000              | 900      |
|    |                         | ASTM D2863 (Sample size: 10mm x 150mm) 15 - 30 Specimen<br>IS 13501 (Sample size: 50mm x 150mm) 10 Specimen  |          | 3000     | 2250              | 1800     |
|    |                         | Test done with 5 specimens (Customized or specify by the standard)   |          | 1200     | 900               | 750      |

| V. ANALYTICAL TESTING LAB |   |   |           |   |                   |          |
|---------------------------|---|---|-----------|---|-------------------|----------|
| #                         | Test  | Details   | Charges   | Industry  | Research Scholars | Students |
|                           |   |   |           | Rs  |                   |          |
| 20                        | Field Emission Scanning Electron Microscope (FESEM+EDAX+ MAPPING) | Conductive Sample (Sample size: 5 mm x 5 mm)                          | / sample  | 1700  | 1000              | 1000     |
|                           |   | Non-Conductive Sample (solid material) (Sample size: 5 mm x 5 mm)     |           | 2000  | 1300              | 1300     |
|                           |   | Non-Conductive Sample (powder material)                               |           | 2200  | 1500              | 1500     |
|                           |   | EDS (Extra)   |           | 500   | 250               | 250      |
|                           |   | Elemental Mapping   | / Mapping | 1000  | 500               | 500      |
|                           |   | Solid material sputter coating & conductive powder vaccuming          | / sample  | 300   | 300               | 300      |
|                           |   | Non conductive powder sputter coating (It needs 12hours vaccuming)    | / sample  | 500   | 500               | 500      |
|                           |   | Hour basis (Coating charges extra) only for students & R Scholars     | / hour    | * 1 hour - Rs.2000.00 for 3 samples ,<br>* 2 hours - Rs.4000.00 for 4-6 samples ,<br>* 3 hours - Rs.6000.00 for 7-9 samples . |                   |          |
| 21                        | X-Ray Diffraction   | Edax with out SEM test (Conductive samples)                           | / Edax    | 1000  | 500               | 500      |
|                           |   | Regular XRD (solid material -Sample size: 5 mm x 5 mm)                | / sample  | 900   | 560               | 450      |
| 22                        | DSC with TGA  | Slow XRD (solid material -Sample size: 5 mm x 5 mm)                   | / hr      | 1300  | 900               | 900      |
|                           |   | Aluminium Crucible (RT-550 C) - Sample size: 10 mg (10k/min)          | / sample  | 1500  | 1200              | 900      |
| 23                        | UV Spectroscopy   | Alumina Crucible above 550 C (RT-1200) - Sample size: 10 mg (20k/min) | / sample  | 3000  | 2400              | 1800     |
|                           |   | Liquid / Film Sample  | / sample  | 600   | 450               | 360      |
|                           |   | DRA for Powder Sample   |           | 1000  | 750               | 600      |
| 24                        | FTIR Spectrophotometer  | Concentration of Liquid   |           | 600   | 450               | 360      |
|                           |   | Sample preparation additional charge: Rs 250                          |           | 700   | 550               | 450      |
| 25                        | Weatherometer   | For all samples   | / hr      | Charges applicable as per standard  |                   |          |
| 26                        | UV Transmittance Analyzer   | AS/NZS 4399 :1996 Sample size: 50cm x 50cm - Dry method               | / sample  | 1200  | 800               | 650      |
|                           |   | AATCC 183 Sample size: 50cm x 50cm - Dry / Wet method only            |           | 1200  | 800               | 650      |
|                           |   | BS EN 13758-1:2002 Sample size: 50cm x 50cm                           |           | 1200  | 800               | 650      |
| 27                        | Hydro Head Tester   | AATCC 127 , (Sample Size: 20 cm x 20 cm) 5 specimens                  | / sample  | 1000  | 750               | 500      |
|                           |   | EN 20811 (Sample Size: 20 cm x 20 cm) 5 specimens                     |           | 1000  | 750               | 500      |

## VI. WET TESTING LAB

| #  | Test                  | Details                                 | Charges  | Industry | Research Scholars | Students |
|----|-----------------------|---|----------|----------|-------------------|----------|
|    |                       |   |          | Rs       |                   |          |
| 28 | pH Meter              | ISO 3071 Sample = 50 ml                 | / sample | 200      | 150               | 120      |
| 29 | Viscometer            | Sample = 600 ml                         | / sample | 600      | 450               | 300      |
| 30 | Hot Plate             | NA                                      | 60 min   | 100      | 75                | 60       |
| 31 | Digital Hot Oven      | For sample preparation                  | / batch  | 100      | 75                | 60       |
| 32 | Laundrometer          | Sample size: 50mm x 150mm               | / sample | 500      | 350               | 250      |
| 33 | Fogging Tester        | ISO 6452 ( Weiging Method ) -16 hours   | / sample | 10000    | 7500              | 5000     |
|    |                       | ISO 6452 ( Fogg Value Method ) -3 hours |          | 5000     | 3750              | 3000     |
| 34 | Conditioning Chamber  | NA                                      | / Hour   | 200      | 150               | 100      |
| 35 | Dimensional stability | Maximum 150 degree for 30 minutes       | /sample  | 500      | 375               | 300      |

## VII. SURFACE CHARACTERIZATION LAB

| #  | Test                                   | Details   | Charges      | Industry | Research Scholars | Students |
|----|--|---|--------------|----------|-------------------|----------|
|    |  |   |              | Rs       |                   |          |
| 36 | Process Tensiometer<br>(Contact Angle) | Surface tension   | / sample     | 1000     | 750               | 600      |
|    |  | Sorption Rate,Wetted Length   |              | 1000     | 750               | 600      |
|    |  | Contact Angle   |              | 1600     | 1200              | 960      |
| 37 | Taber Abrasion Resistance              | upto 1000 cycle (sample size: 0.25 sq.m)<br>Rs.500 Extra)   | / sample     | 1000     | 750               | 500      |
| 38 | Wet Scrub Abrasion                     | Paint & Solvent   |              | 1600     | 1300              | 1000     |
| 39 | Martindale Pilling & Abrasion          | ISO 12945-2 (Sample Size: 0.25 sq.m)<br>0.25 sq.m) Shock abrasion test and Leather abrasion test also possible. |              | 1000     | 750               | 500      |
| 40 | Wrap Reel                              | Cops or cones   | / 10 samples | 300      | 200               | 150      |

| TERMS & CONDITIONS |  |
|--------------------|--|
| 1                  | The testing service is being provided to support research activities at both industrial and academic level.  |
| 2                  | Testing will be done against advance payment of charges. Cash / Draft / NEFT will be accepted. Please be sure to collect receipt for payment   |
| 3                  | DD or cheque drawn should be in the name of " <b>PSG INDUSTRIAL INSTITUTE</b> "  |
| 4                  | The above rates are for single run and exclusive of service tax. Current period service tax will be applicable for all testing work .  |
| 5                  | Volume discounts may be applicable please contact COE Indutech for details   |
| 6                  | The samples may be sent by courier along with payment (DD or Cheque). Results will be sent by email and receipt may be collected later or sent by mail.  |
| 7                  | Special consideration may be given to students with financial constraints and large number of samples for thesis work.   |
| 8                  | You may fix appointment for running your samples by email.   |
| 9                  | Unknown samples, deviation in the standard parameters and custom made test will be carried out at Rs. 1000.00 for Students, Rs.1500.00 for research scholars, and Rs. 2000.00 for Industry - On hour basis. (Max of 5 specimens) |
| 10                 | We recommend conductive coating for powder samples to get image clarity in FESEM   |
| 11                 | If samples are need to return after testing, the couriers charges will be added in your testing charges. (The same to be informed while submitting the samples)  |
| 12                 | All the tested samples will be destroyed after testing immediately. You cannot claim for the remanant samples.   |
| 13                 | Powder samples are only accepted when the same is submitted in plastic Vial tubes only.  |
| 14                 | Postal Address: PSGTECHS COE INDUTECH, Avinashi road, Neelambur - 641 062.   |