



BILLING RATES - FY 22/23

DEPARTMENT NAME :

Materials Science and Engineering

VICE-PRESIDENT AREA :

Provost-Academic Affairs - CECAS [College of Engineering, Computing and Applied Science]

DESCRIPTION OF COMMODITY OR SERVICE :	UNIT OF BILLING	FY 22/23 RATE	CUSTOMERS BEING SERVED
Analytical Testing Laboratory			
Sample Preparation	per hour	\$135.12	Industrial companies
Extractions (Soxhlet)	per sample	\$135.12	Industrial companies
Extractions (ASE)	per sample	\$90.32	Industrial companies
Data Analysis	per hour	\$235.60	Industrial companies
FTIR/ UV/Vis/NIR - Instrument (Avg 20 Min/Sample)	per instr. hour	\$279.43	Industrial companies
GC/MS - Instrument (Avg 40 Min/Sample)	per instr. hour	\$235.60	Industrial companies
Chromatography GC, SFC, HPLC - Instrument (Excludes Method Development)	per instr. hour	\$135.12	Industrial companies
NMR - Operator	per hour	\$235.60	Industrial companies
NMR - Instrument	per instr. hour	\$33.95	Industrial companies
Thermal Analysis TGA, DSC, MDSC	per instr. hour	\$167.47	Industrial companies
Thermal Analysis DMTA (DMA OR TMA) - Instrument (Avg 60 Min/Sample)	per instr. hour	\$211.97	Industrial companies



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Physical Testing Laboratory			Industrial companies
Skein Break D-1578	per sample	\$75.30	Industrial companies
Tensile (Grab) Warp & Filling - D-5034	per sample	\$87.29	Industrial companies
Tensile (Modified Grab) Warp & Filling - D-5034	per sample	\$87.29	Industrial companies
Single End Yarn Break - Statimat 11 - D-2256	per sample	\$87.29	Industrial companies
Single End Yarn Break - Instron D-2256	per sample	\$87.29	Industrial companies
Tear Test (Tounge) D-2261	per sample	\$87.29	Industrial companies
Tear Test (Trapezoid) D-5587	per sample	\$87.29	Industrial companies
Tensile 1" Strip (Instron or Scott) D-5035	per sample	\$87.29	Industrial companies
Single Fiber Break D-3822	per sample	\$124.91	Industrial companies
Resistance to Slippage of Yarns in Woven Fabric - D434	per sample	\$124.91	Industrial companies



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Bursting (Ball) - ASTM D-3787	per sample	\$87.29	Industrial companies
Hydrostatic Head (FX 3000) - 127 AATCC	per sample	\$75.30	Industrial companies
Air Permeability (FX 3300) - D-0737	per sample	\$49.82	Industrial companies
Water Repellency - Spray Test - 22 AATCC	per sample	\$62.86	Industrial companies
Water Repellency - IPA/Water AATCC - 42	per sample	\$75.30	Industrial companies
Abrasion - StohID-3885/D3886	per sample	\$75.30	Industrial companies
Abrasion - Yarn - CTT	per sample	\$103.58	Industrial companies
Abrasion - Taber (Cost Plus Wheels)	per sample	\$188.12	Industrial companies
Abrasion (Wyzenbeek) D-4157	per sample	\$124.95	Industrial companies
Pilling (Rotary Tumble) - 3 Repeats D-3512	per sample	\$75.30	Industrial companies
Tear Test (D-1424) Elmendorf	per sample	\$66.75	Industrial companies
Weight - D-3776	per sample	\$49.82	Industrial companies
AOS (EOS) Geotextile	per sample	\$124.95	Industrial companies
Moisture Regain/Content D-2495	per sample	\$87.29	Industrial companies
Colorfastness to laundering (Home& Comm: Acclrtd) - AATCC 61 - 3A Test	per sample	\$627.44	Industrial companies



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Color Fastness (Crocking) AATCC 8:	per sample	\$49.82	Industrial companies
Colorfastness to Light (Carbon-Arc Lamp) 16 AATCC Sec. 1 D	per sample	\$96.81	Industrial companies
Colorfastness (Washing)	per sample	\$125.78	Industrial companies
PH % - 81	per sample	\$49.82	Industrial companies
Scour Greige Goods & Dye	per sample	\$374.56	Industrial companies
Dimensional Change (Shrinkage) 3 Repeats/Sample - 135 AATCC	per sample	\$250.51	Industrial companies
Fabric Durable Press Rating 3 Repeats - 124 AATCC	per sample	\$250.51	Industrial companies
Flammability (45 degree Angle) FTM 5908 ASTM- D- 1230	per sample	\$75.30	Industrial companies
Verticle Flammability ASTM D-6413	per sample	\$75.30	Industrial companies
Barre' (Redye)	per sample	\$311.99	Industrial companies
Barre' (Yarn Pull & Weigh)	per sample	\$187.32	Industrial companies
Barre' (Yarn Pull & ReKnit)	per sample	\$187.32	Industrial companies
MacBeth Color Eye - Spectrophotometer	Per hour	\$279.43	Industrial companies
Microscopy/Image Analysis	per hour	\$157.32	Industrial companies
Crimp Per Inch (Fiber)	per sample	\$49.82	Industrial companies



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Cross-Sections sample preparation(microscopy separate)	per sample	\$87.29	Industrial companies
Fiber Denier (Microscopic Measurement)	per sample	\$75.30	Industrial companies
Fiber Staple Length	per sample	\$49.82	Industrial companies
Uster AFIS (Neps, Length & Diameter & Trash)	per sample	\$75.30	Industrial companies
Yarn Denier/Count by Weight	per sample	\$37.96	Industrial companies
Yarn Shrinkage (Boiling Water) D-2259	per sample	\$124.91	Industrial companies
Yarn Tension	per sample	\$150.21	Industrial companies
Yarn Filament Count	per sample	\$62.86	Industrial companies
Yarn Inspection (Pulled from fabric)	per sample	\$26.15	Industrial companies
Uster (Yarn Evenness) D-1425	per sample	\$87.29	Industrial companies
Yarn Twist (ILS) D-1423	per sample	\$66.82	Industrial companies
Yarn Appearance (EIB) D2255	per sample	\$49.82	Industrial companies
Fabric Width D-3774	per sample	\$49.82	Industrial companies
Fabric (Construction Ends/in., Picks/in., etc., D-3775	per sample	\$87.29	Industrial companies
Fabric Streak Analyzer (Replicas)	per sample	\$40.14	Industrial companies



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Thickness - SAE J-1355	per sample	\$49.82	Industrial companies
Thickness (Shirley) FTM 5030	per sample	\$49.82	Industrial companies
Loop Strength ASTM D2256-5 (YARN)	per sample	\$87.29	Industrial companies
Pore Distribution & Bubble Point (PMI)	per sample	\$339.87	Industrial companies
General Laboratory Usage (no equipment usage)	daily	\$1,044.25	Industrial companies
Benz oven use and Latex Trials	per day	\$1,568.05	Industrial companies
Non-Wovens Laboratory Usage (Rando Machine)(except fibreglas)	daily	\$1,775.65	Industrial companies
Hills Extruder (Room 236 Serrine) (single extruder includes winding & drawing) (1/2 Day Min.)	daily	\$3,131.45	Industrial companies
James Extruder (Room 305 Rhodes) double extruder without winding and without drawing (1/2 Day Min.)	daily	\$2,086.05	Industrial companies
Atomic Force Microscopy	per hour	\$173.89	Industrial companies
Surface tension of different liquids	per hour	\$102.80	Industrial companies
Surface energy of planar substrates, fibers and contact angles	per hour	\$102.80	Industrial companies
Rheological analysis of complex fluids	per hour	\$88.55	Industrial companies
Characterization of compression properties of fiber and films (Kawabata compression tester)	per hour	\$112.30	Industrial companies
High speed imaging of droplet spreading and absorption into fibrous materials	per hour	\$155.00	Industrial companies



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Characterization of magneto-optical properties of transparent materials (verdet constants)	per hour	\$115.45	Industrial companies
CERAMICS & MATERIALS ENGINEERING			
External Rates			
X-ray Diffraction	per hour	\$104.40	Industrial companies
Total Particle Size Analysis	per sample	\$312.00	Industrial companies
PSD(Horiba)	per sample	\$312.00	Industrial companies
Thermogravimetric Analysis (Netzsch)	per sample	\$312.00	Industrial companies
Differential Thermal Analysis	per sample	\$312.00	Industrial companies
Dilatometry(air) ((Netzsch)	per sample	\$208.80	Industrial companies
Dilatometry(controlled atmosphere)	per sample	\$417.10	Industrial companies
AMRL			
Optical Fiber Draws	Per day	\$4,329.07	Industrial companies
Optical Characterization	per sample	\$298.80	Industrial companies



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New View (White Light interferometer)	per hour	\$96.99	Industrial companies
Microthermal analysis	per hour	\$290.18	Industrial companies
Viscosity Measurements	per sample	\$158.36	Industrial companies
MCVD preform fabrication	Per day	\$4,786.46	Industrial companies
Stacking	Per day	\$3,169.51	Industrial companies
AMRL-NMR (Nuclear Magnetic Resonance)	per instr. hour	\$95.91	Industrial companies