



BILLING RATES - FY 20/21

DEPARTMENT NAME :
Materials Science & Engineering

VICE-PRESIDENT AREA :
Chief Business Officer (CECAS)

DESCRIPTION OF COMMODITY OR SERVICE :	UNIT OF BILLING	FY 20/21 RATE	CUSTOMERS BEING SERVED
Analytical Testing Laboratory			
Sample Preparation	per hour	\$123.76	Industrial companies
Extractions (Soxhlet)	per sample	\$123.76	Industrial companies
Extractions (ASE)	per sample	\$82.73	Industrial companies
Data Analysis	per hour	\$215.79	Industrial companies
FTIR/ UV/Vis/NIR - Instrument (Avg 20 Min/Sample)	per instr. hour	\$255.93	Industrial companies
GC/MS - Instrument (Avg 40 Min/Sample)	per instr. hour	\$215.79	Industrial companies
Chromatography GC, SFC, HPLC - Instrument (Excludes Method Development)	per instr. hour	\$123.76	Industrial companies
NMR - Operator	per hour	\$215.79	Industrial companies
NMR - Instrument	per instr. hour	\$31.10	Industrial companies
Thermal Analysis TGA, DSC, MDSC	per instr. hour	\$153.39	Industrial companies
Thermal Analysis DMTA (DMA OR TMA) - Instrument (Avg 60 Min/Sample)	per instr. hour	\$194.15	Industrial companies
Physical Testing Laboratory			
Skein Break D-1578	per sample	\$68.97	Industrial companies



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Tensile (Grab) Warp & Filling - D-5034	per sample	\$79.95	Industrial companies
Tensile (Modified Grab) Warp & Filling - D-5034	per sample	\$79.95	Industrial companies
Single End Yarn Break - Statimat 11 - D-2256	per sample	\$79.95	Industrial companies
Single End Yarn Break - Instron D-2256	per sample	\$79.95	Industrial companies
Tear Test (Tounge) D-2261	per sample	\$79.95	Industrial companies
Tear Test (Trapezoid) D-5587	per sample	\$79.95	Industrial companies
Tensile 1" Strip (Instron or Scott) D-5035	per sample	\$79.95	Industrial companies
Single Fiber Break D-3822	per sample	\$114.41	Industrial companies
Resistance to Slippage of Yarns in Woven Fabric - D434	per sample	\$114.41	Industrial companies
Bursting (Ball) - ASTM D-3787	per sample	\$79.95	Industrial companies
Hydrostatic Head (FX 3000) - 127 AATCC	per sample	\$68.97	Industrial companies
Air Permeability (FX 3300) - D-0737	per sample	\$45.63	Industrial companies
Water Repellency - Spray Test - 22 AATCC	per sample	\$57.57	Industrial companies
Water Repellency - IPA/Water AATCC - 42	per sample	\$68.97	Industrial companies
Abrasion - StohID-3885/D3886	per sample	\$68.97	Industrial companies



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Abrasion - Yarn - CTT	per sample	\$94.87	Industrial companies
Abrasion - Taber (Cost Plus Wheels)	per sample	\$172.30	Industrial companies
Abrasion (Wyzenbeek) D-4157	per sample	\$114.41	Industrial companies
Pilling (Rotary Tumble) - 3 Repeats D-3512	per sample	\$68.97	Industrial companies
Tear Test (D-1424) Elmendorf	per sample	\$61.14	Industrial companies
Weight - D-3776	per sample	\$45.63	Industrial companies
AOS (EOS) Geotextile	per sample	\$114.41	Industrial companies
Moisture Regain/Content D-2495	per sample	\$79.95	Industrial companies
Colorfastness to laundering (Home& Comm: Accltrd) - AATCC 61 - 3A Test	per sample	\$574.68	Industrial companies
Color Fastness (Crocking) AATCC 8:	per sample	\$45.63	Industrial companies
Colorfastness to Light (Carbon-Arc Lamp) 16 AATCC Sec. 1 D	per sample	\$88.67	Industrial companies
Colorfastness (Washing)	per sample	\$115.20	Industrial companies
PH % - 81	per sample	\$45.63	Industrial companies
Scour Greige Goods & Dye	per sample	\$343.07	Industrial companies
Dimensional Change (Shrinkage) 3 Repeats/Sample - 135 AATCC	per sample	\$229.45	Industrial companies



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Fabric Durable Press Rating 3 Repeats - 124 AATCC	per sample	\$229.45	Industrial companies
Flammability (45 degree Angle) FTM 5908 ASTM- D-1230	per sample	\$68.97	Industrial companies
Verticle Flammability ASTM D-6413	per sample	\$68.97	Industrial companies
Barre' (Redye)	per sample	\$285.76	Industrial companies
Barre' (Yarn Pull & Weigh)	per sample	\$171.56	Industrial companies
Barre' (Yarn Pull & ReKnit)	per sample	\$171.56	Industrial companies
MacBeth Color Eye - Spectrophotometer	Per hour	\$255.93	Industrial companies
Microscopy/Image Analysis	per hour	\$144.09	Industrial companies
Crimp Per Inch (Fiber)	per sample	\$45.63	Industrial companies
Cross-Sections sample preparation(microscopy separate)	per sample	\$79.95	Industrial companies
Fiber Denier (Microscopic Measurement)	per sample	\$68.97	Industrial companies
Fiber Staple Length	per sample	\$45.63	Industrial companies
Uster AFIS (Neps, Length & Diameter & Trash)	per sample	\$68.97	Industrial companies
Yarn Denier/Count by Weight	per sample	\$34.77	Industrial companies
Yarn Shrinkage (Boiling Water) D-2259	per sample	\$114.41	Industrial companies



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Yarn Tension	per sample	\$137.58	Industrial companies
Yarn Filament Count	per sample	\$57.57	Industrial companies
Yarn Inspection (Pulled from fabric)	per sample	\$23.95	Industrial companies
Uster (Yarn Evenness) D-1425	per sample	\$79.95	Industrial companies
Yarn Twist (ILS) D-1423	per sample	\$61.20	Industrial companies
Yarn Appearance (EIB) D2255	per sample	\$45.63	Industrial companies
Fabric Width D-3774	per sample	\$45.63	Industrial companies
Fabric (Construction Ends/in., Picks/in., etc., D-3775	per sample	\$79.95	Industrial companies
Fabric Streak Analyzer (Replicas)	per sample	\$36.77	Industrial companies
Thickness - SAE J-1355	per sample	\$45.63	Industrial companies
Thickness (Shirley) FTM 5030	per sample	\$45.63	Industrial companies
Loop Strength ASTM D2256-5 (YARN)	per sample	\$79.95	Industrial companies
Pore Distribution & Bubble Point (PMI)	per sample	\$311.29	Industrial companies
General Laboratory Usage (no equipment usage)	daily	\$956.41	Industrial companies
Benz oven use and Latex Trials	per day	\$1,436.17	Industrial companies



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Non-Wovens Laboratory Usage (Rando Machine)(except fiberglas)	daily	\$1,626.33	Industrial companies
Hills Extruder (Room 236 Serrine) (single extruder includes winding & drawing) (1/2 Day Min.)	daily	\$2,868.14	Industrial companies
James Extruder (Room 305 Rhodes) double extruder without winding and without drawing (1/2 Day Min.)	daily	\$1,910.62	Industrial companies
Atomic Force Microscopy	per hour	\$159.27	Industrial companies
Surface tension of different liquids	per hour	\$94.13	Industrial companies
Surface energy of planar substrates, fibers and contact angles	per hour	\$94.13	Industrial companies
Rheological analysis of complex fluids	per hour	\$81.11	Industrial companies
Characterization of compression properties of fiber and films (Kawabata compression tester)	per hour	\$102.85	Industrial companies
High speed imaging of droplet spreading and absorption into fibrous materials	per hour	\$141.94	Industrial companies
Characterization of magneto-optical properties of transparent materials (verdet constants)	per hour	\$105.74	Industrial companies

CERAMICS & MATERIALS ENGINEERING

External Rates

X-ray Diffraction	per hour	\$95.60	Industrial companies
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Total Particle Size Analysis	per sample	\$285.76	Industrial companies
PSD(Horiba)	per sample	\$285.76	Industrial companies
Thermogravimetric Analysis (Netzsch)	per sample	\$285.76	Industrial companies
Differential Thermal Analysis	per sample	\$285.76	Industrial companies
Dilatometry(air) ((Netzsch)	per sample	\$191.21	Industrial companies
Dilatometry(controlled atmosphere)	per sample	\$382.00	Industrial companies
AMRL Rates			
Optical Fiber Draws	Per day	\$3,957.61	Industrial companies
Optical Characterization	per sample	\$273.16	Industrial companies
New View (White Light interferometer)	per hour	\$88.67	Industrial companies
Microthermal analysis	per hour	\$265.28	Industrial companies
Viscosity Measurements	per sample	\$144.77	Industrial companies
MCVD preform fabrication	Per day	\$4,375.75	Industrial companies
Stacking	Per day	\$2,897.55	Industrial companies