



POROUS MATERIALS, INC.

ANALYTICAL TESTING SERVICES

EFFECTIVE JANUARY 2010

Capillary Flow Porometry: *Bubble Point, Mean Flow Diameter, Pore Distribution, Hydro- Head, Micro Flow Porometry*

Liquid Extrusion Porosimetry: *Through Pore Volume & Liquid Permeability*

Permeability: *Frazier, Gurley, Rayl, Darcy, Gas Permeability, Liquid Permeability, Diffusion Permeametry*

Water Vapor Transmission Rate: *Function of Humidity, Pressure & Temperature*

Mercury & Non-Mercury Intrusion Porosimetry: *Pore Volume, Diameter, Surface Area, Intrusion/ Extrusion, Hydrophobic/Hydrophilic Pores*

Gas Adsorption Techniques: *Surface Area, Pore Volume, T-Curve, Micropore Analysis, Adsorption/ Desorption Isotherms, Chemisorption of Strong Chemicals, Vapor Adsorption*

Pycnometry: *Bulk Density, True Density*

Effects of Simulated Services Conditions: *Compressive Stress, Stress Cycles, Temperature, Strong Chemicals*

POROUS MATERIALS, INC.

20 DUTCH MILL RD
ITHACA, NY 14850 USA

TOLL FREE (US & CANADA): 1-800-825-5764
PHONE: 607-257-5544 FAX: 607-257-5639

INFO@PMIAPP.COM

WWW.PMIAPP.COM

ANALYTICAL SERVICES

At PMI Analytical Services, we are committed to helping you obtain the information you need. Because there are multiple techniques and instruments, it is critical at the onset to identify the appropriate method of measurement. We begin by discussing your application with you, learn the results you need to obtain, and then recommend a specific test or combination of tests that will provide the most comprehensive results.

While PMI provides you with a detailed report, our application engineers are always available to discuss and help interpret your results.

We can analyze your samples and return your results to you (hard copy or on disk, via email, fax, or US Postal service) in as little as 1-2 business days.

TESTING PRICES

Mercury Porosimetry

T101 Pore Volume, Pore Size Distribution, & Surface Area	\$205
T102 Hysteresis	add \$25
T103 Bulk & Absolute Density	add \$60
T104 Particle Size Distribution	add \$35
T105 Particle Size Distribution only	add \$75
T106 Compressed Sample Porosimetry	\$280

Aquapore/Organopore: (nonwetting/nonmercury porosimetry)

T201 Pore Volume, Pore Size, & Surface Area	\$280
T202 Hysteresis	add \$60
T203 Compressed Sample Porosimetry	\$360

Pycnometry

T301 Bulk Density (Mercury)	\$65
T302 Absolute Density (Helium)	\$75

BET Analysis: Surface Area

T401 Single Point Surface Area - Nitrogen	\$100
T402 Single Point Surface Area - Krypton	\$120
T403 Multi-Point Surface Area - Nitrogen	\$145
T404 Multi-Point Surface Area - Krypton	\$170

Gas Adsorption Analysis: Using Nitrogen

T410 Multi Point Surface Area, Total Pore Volume, and Average Pore Diameter (no isotherm)	\$235
T411 Complete Adsorption Isotherms (no data analysis)	\$285
T412 Complete Desorption Isotherms (no data analysis)	\$285
T413 Adsorption & Desorption Isotherms (no data analysis)	\$460
T414 Multi-Point Surface Area, Adsorption & Desorption Isotherms, & Pore Distribution	\$520
T415 Multi-Point Surface Area, Adsorption Isotherms, & Pore Distribution	\$355
T416 Multi-Point Surface Area, Desorption Isotherms, & Pore Distribution	\$355
T417 Chemisorption	\$215

Gas Adsorption Analysis: Using Gases OTHER Than Nitrogen

T420 Adsorption or Desorption Isotherm	\$415
T421 Adsorption & Desorption Isotherm	\$545
T422 Specific Surface Area with Gases Other than Nitrogen & Krypton	\$185

Aquasorb

T430 Water Vapor Adsorption	\$415
-----------------------------	-------

Capillary Flow Porometry

T501 Gas Permeability	\$105
T502 Pore Distribution & Bubble Point	\$195
T503 Gas Permeability, Pore Distribution & Bubble Point	\$210
T504 Bubble Point	\$75
T505 Microflow Permeability	\$170
T506 Liquid Permeability	\$135
T507 Hydro-Head	\$75
T508 Filter Integrity	\$80
T509 Microflow Permeability, Pore Distribution & Bubble Point	\$395
T511 In-Plane Gas Permeability	\$160
T512 In-Plane Flow Distribution & Bubble Point	\$250
T513 In-Plane Gas Permeability, Pore Distribution & Bubble Point	\$310
T514 In-Plane Bubble Point	\$130
T515 In-Plane Microflow Permeability	\$225
T516 In-Plane Liquid Permeability	\$190
T517 In-Plane Hydro-Head	\$130
T518 In-Plane Filter Integrity	\$135
T521 Hi-Flow Gas Permeability	\$170
T522 Hi-Flow Gas Distribution & Bubble Point	\$260
T523 Hi-Flow Gas Permeability, Pore Distribution & Bubble Point	\$320
T524 Hi-Flow Bubble Point	\$140
T525 Hi-Flow Microflow Permeability	\$235
T526 Hi-Flow Liquid Permeability	\$200
T527 Hi-Flow Hydro-Head	\$140
T528 Hi-Flow Filter Integrity	\$145
T500HT Elevated Temperature Option (up to 180° C)	add \$105

PMI's Analytical Services Division can accommodate a wide variety of samples, materials, and shapes. Sample size and consistency requirements vary with the test and material to be analyzed. For large numbers of samples, special test conditions or individual assistance, please contact PMI.

Liquid/Liquid Porometry

T1102 Pore Size & Pore Distribution	\$295
T1103 Microflow Liquid Permeability, Pore Size, & Pore Distribution	\$395



Compression Porometry

T601 Gas Permeability	\$160
T602 Pore Distribution & Bubble Point	\$280
T603 Gas Permeability, Pore Distribution & Bubble Point	\$310
T604 Bubble Point	\$105
T605 Microflow Permeability	\$230
T606 Liquid Permeability	\$215
T607 Hydro-Head	\$105
T611 In-Plane Gas Permeability	\$215
T612 In-Plane Pore Distribution & Bubble Point	\$335
T613 In-Plane Gas Permeability, Pore Distribution & Bubble Point	\$365
T614 In-Plane Bubble Point	\$160
T615 In-Plane Microflow Permeability	\$285
T616 In-Plane Liquid Permeability	\$270
T617 In-Plane Hydro-Head	\$160
T621 Hi-Flow Gas Permeability	\$225
T622 Hi-Flow Pore Distribution & Bubble Point	\$345
T623 Hi-Flow Gas Permeability, Pore Distribution & Bubble Point	\$375
T624 Hi-Flow Bubble Point	\$160
T625 Hi-Flow Microflow Permeability	\$295
T626 Hi-Flow Liquid Permeability	\$280
T627 Hi-Flow Hydro-Head	\$170

Diffusion Permeability & Vapor Transmission

T701 Diffusion Permeability	\$280
T702 Diffusion Permeability (High Temperature)	\$370
T703 Diffusion Permeability (High Pressure)	\$315
T704 Diffusion Permeability using a Mass Spectrometer	add \$200
T705 Water Vapor Transmission Rate (Humidity Gradient)	\$525
T706 Water Vapor Transmission Rate (Pressure Gradient)	\$265
T707 Water Vapor Transmission Rate (Range of Humidity)	\$630
T711 Gas Transmission (Concentrate Gradient)	\$495
T712 Gas Transmission with Moisture Gradient	\$695
T713 Gas Transmission with Moisture & Temperature Gradient	\$995

Envelope Surface Area, Average Particle Size, & Average Fiber Diameter

T801 Envelope Surface Area	\$100
T802 Envelope Surface Area & Average Particle Size	\$160
T803 Envelope Surface Area & Average Fiber Diameter	\$160
T804 Average Fiber Diameter	\$100

Liquid Extrusion Porosimetry

T901 Through Pore Volume & Distribution	\$265
T902 Hysteresis	add \$55
T903 Bulk & Absolute Density	add \$60
T904 Liquid Permeability	\$135
T905 Pore Volume, Distribution, & Liquid Permeability	\$370
T906 Microflow Liquid Permeability	\$205
T907 Effects of Compression on Pore Volume	add \$105
T908 Elevated Temperature Test (up to 200° C)	add \$105
T909 Through Pore Volume & Distribution (Directional, Top to Bottom, Bottom to Top)	\$475

Capillary Condensation Flow Porometry

T1001 Pore Size Distribution using Capillary Condensation	\$495
---	-------



100% credit is provided for the use of our analytical services toward equipment purchase within 6 months [up to a maximum of 10% of the equipment cost]

TESTING REQUEST FORM

NAME: _____

P.O. # OR CC#: _____

COMPANY: _____

EXP. DATE: _____ (AMEX, VISA, MASTER, ETC.)

ADDRESS: _____

REQUESTED TURNAROUND TIME:

_____ 1-2 WEEKS

_____ 5 BUSINESS DAYS (+ 20%)

_____ 1-2 BUSINESS DAYS (+ 40%)

PHONE #: _____

EMAIL: _____

DO YOU WANT YOUR SAMPLES RETURNED? Y N

BILLING PHONE: _____

WOULD YOU LIKE A HARD COPY OF DATA? Y N

BILLING ADDRESS: _____

Test, Price, Quantity

Mercury Porosimetry	
T101	\$205
T102	add \$25
T103	add \$60
T104	add \$35
T105	add \$75
T106	\$280

Aquapore/Organopore (nonwetting/nonmercury porosimetry)	
T201	\$280
T202	add \$60
T203	\$360

Pycnometry	
T301	\$65
T302	\$75

BET Analysis Surface Area	
T401	\$100
T402	\$120
T403	\$145
T404	\$170

Gas Adsorption Analysis Using Nitrogen	
T410	\$235
T411	\$285
T412	\$285
T413	\$460
T414	\$520
T415	\$355
T416	\$355
T417	\$215

Gas Adsorption Analysis Using Gases OTHER Than Nitrogen	
T420	\$415
T421	\$545
T422	\$185

Aquasorb	
T430	\$415

Description of Sample(s) & Additional Comments:

Capillary Flow Porometry			
T501	\$105	T521	\$170
T502	\$195	T522	\$260
T503	\$210	T523	\$320
T504	\$75	T524	\$140
T505	\$170	T525	\$235
T506	\$135	T526	\$200
T507	\$75	T527	\$140
T508	\$80	T528	\$145
T509	\$395	T500HT	add \$105
T511	\$160		
T512	\$250		
T513	\$310		
T514	\$130		
T515	\$225		
T516	\$190		
T517	\$130		
T518	\$135		

Liquid/Liquid Porometry	
T1102	\$295
T1103	\$395

Compression Porometry			
T601	\$160	T621	\$225
T602	\$280	T622	\$345
T603	\$310	T623	\$375
T604	\$105	T624	\$160
T605	\$230	T625	\$295
T606	\$215	T626	\$280
T607	\$105	T627	\$170
T611	\$215		
T612	\$335		
T613	\$365		
T614	\$160		
T615	\$285		
T616	\$270		
T617	\$160		

Additional Requested Testing Services	
Price: _____	Quantity: _____
Description: _____	

Diffusion Permeability & Vapor Transmission	
T701	\$280
T702	\$370
T703	\$315
T704	add \$200
T705	\$525
T706	\$265
T707	\$630
T711	\$495
T712	\$695
T713	\$995

Envelope Surface Area, Average Particle Size, & Average Fiber Diameter	
T801	\$100
T802	\$160
T803	\$160
T804	\$100

Liquid Extrusion Porosimetry	
T901	\$265
T902	add \$55
T903	add \$60
T904	\$135
T905	\$370
T906	\$205
T907	add \$105
T908	add \$105
T909	\$475

Capillary Condensation Flow Porometry	
T1001	\$495

Office use ONLY	Nov. 13, 2009
Lot#: _____	
Samples Submitted: _____	
Lab: _____	Acct: _____
Shipping Date: _____	
Shipping Method:	
Priority	Next-Day
Email	Fax
Date Test Finished: _____	
Shipping Conf #: _____	