

Comparison of Porometry and Porosimetry

PMI Technique	Wetting Liquid Extrusion Gas Flow Technique	Wetting Liquid Extrusion Liquid Flow Technique	Mercury Intrusion Technique	Water/Nonmercury Technique
PMI Instrument	Capillary Flow Porometer	Liquid Extrusion Porosimeter	Mercury Intrusion Porosimeter	Aquapore/Nonmercury Intrusion Porosimeter
Pore Diameter	Through pore throat diameter	✓		
	All diameters of through pores		✓	
	Through pore largest & mean throat diameter	✓		
	All diameters of through & blind pores			✓
Pore Volume	Through pore volume		✓	
	Through & blind pore volume		✓	✓
Surface Area	Through pore area	✓	✓	
	Through & blind pore area		✓	✓
Flow Properties	Gas Permeability	✓		
	Liquid Permeability	✓	✓	
Operational Features	Use of nontoxic materials	✓		
	Low test pressures		✓	
	Not time consuming and involved	✓		
	Hydrophobic/Hydrophilic pore selection			✓
Pore Shape				
Converging/diverging through pores				
Diameter Range				
Diameter Range, μm				
500 - 0.013	2000 - 0.05	500 - 0.003	50 - 0.0003	
Effects of Application Environment on Structure				
1. Compressive Stress 2. Cyclic compression 3. Temperature 4. Orientation of sample 5. Chemical Surrounding	✓	✓		

