



Filtration Efficiency & Feasibility Testing

- Liquid/Solid – Gas/Solid
 - Liquid Filter Performance Test, Single Pass, Constant Rate ASTM F 795
 - Liquid Filter Performance Test, Single Pass, Constant Pressure ASTM F 796
 - Standard Test Methods for Non-filterable Matter (Total Suspended Solids) in Water ASTM D5907-13
- Liquid and Aerosol Filter Efficiency Testing per ASTM and ISO Standards
- Filter Efficiency/Challenge Test per SEMI F38-0699 (Rated Flow)
- Dust Loading-Air Filter Capacity per ISO 12500-3 (2009 E)

Porous Material Characterization

- Dimensional/Density – % Porosity – ISO 2738
 - Permeability Sintered Metal Materials
- Gas Flow Rate vs. Differential Pressure per Unit Area (5 Pressures)
- Bubble Point – Max Pore Size, ASTM E128-61
 - Pore Size Characteristics of Membrane Filters, ASTM 316-86
- Pore Size Distribution
 - PMI Capillary Flow – Pore Size Distributions (0.06 to 600 μm)
- Liquid Flow Rate vs. Differential Pressure

Cleanliness Testing

- Shed Testing-Particle Emission Testing
- Cleaning Techniques-Spec Development
 - Patch Test (Visual and Gravimetric)

Elemental-Chemical Analysis

- Carbon/Sulfur Analysis (LECO CS744)
- Optical Spark Emission Spectroscopy (Spectro MaXx-M)
- ICP-MS and GC-MS
- X-Ray Fluorescence Spectroscopy (XRF)

Metallography

- Sample Prep - Mounting and Polishing for Cross Section Analysis
- Nikon Epiphot Metallograph (50x to 1000x)
- Non-contact Surface Metrology (Hirox HX 8700)

Physical Testing

- Tensile/Compression/Bend Test, ASTM E-8
- Sample Prep – EDM Machining
- Rockwell Hardness/Micro Hardness

Miscellaneous

- Electron Microscopy SEM/EDS
 - JEOL JSM-6610 LV Scanning Electron Microscope with EDAX Apollo XP Energy Dispersive X-Ray Spectrometer
 - High Resolution Imaging with Quantitative Chemical Analysis, Line Scans, Elemental Mapping, and Particle Analysis
- Laser Scattering Particle Size and Distribution Analysis
 - Microtrac S3000 – 0.04-2800 μm
 - Horiba LA-950 – Wet & Dry, 0.01-3000 μm
- Helium Leak Test

Other testing services available upon request.

About Mott:

- World Leader in Sintered Porous Metal Technology
- Expert Design and Engineering Capabilities
- Engineering Solutions for Demanding Applications
- State-of-the-Art Filtration Laboratory
- ISO 9001-2008 Certified and ASME NQA-1 Compliant