

Technical Service & Laboratory Analysis Capability

Clear Edge Filtration has invested in a new state of the art Media Development Laboratory based at its European HQ in Germany. As well as developing new products and technologies for the industrial filtration process market, the lab has range of high tech equipment and qualified scientists capable of offering technical service to customers.

The lab consists of Analytical, Chemical, Physical Testing, Library and Storage areas and employes a multi-disciplinary team consisting of Chemists, Textile & Mechanical Engineers, Material Scientists and Chemical Engineers.

In summary, the lab is able to offer a range of services to its global customer base including the following:

Level 1 - Basic Testing Service

Basic analysis

- Material characteristics of natural, synthetic (polymeric), ceramic or metallic structures eg textile yarn characteristics including diameter, density (linear), yarn type (mono, multi, etc) and thread count.
- Material thickness, weight and permeability.
- Mechanical testing, strength, elongation including low load elongation.
- Basis microscopy image (front, backside and cross -section)



In most cases basic testing can be performed in a few days and a report can be issued. This service is free to customers of Clear Edge Filtration.

Level 2 - Advanced Testing Capability

- SEM characterisation including particle sizing where applicable
- Pressure and vacuum filter testing
- Tests on the use of filter aids, flocculants and polymers
- Pore Size Distribution (PSD) of materials (μ)
- Challenge tests (%) & retention efficiency (3-1000 μ m)
- Liquid permeability and hydrolysis testing
- Laser particle sizing (0.04 -2000 μ m)
- Chemical & thermal analysis of materials (eg DSC)
- Advanced mechanical testing including strength/elongation/creep at temperature and abrasion resistance
- Intellectual property (IP) investigations
- Advice on filter media cake release and cleaning methods)



Depending on requirements, tests will be agreed in advance with customers and realistic timescales for analysis will be decided upon. In most cases this work is chargeable at reasonable commercial rates and following agreement with customers, can be off-set for example against orders.

Level 3 - Mobile Testing Service

- Mobile pressure & vacuum filter testing units
- Air & liquid permeability testing
- Mobile microscopy units



In most cases this service is used where it is not possible to supply material samples to the lab or where it is not possible to transport raw material suspensions. This work is chargeable at reasonable commercial rates and following agreement with customers can be off-set for example against orders.



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Filtration

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