SINKING OPEN CELL MEDIA FILTRATION MEDIA

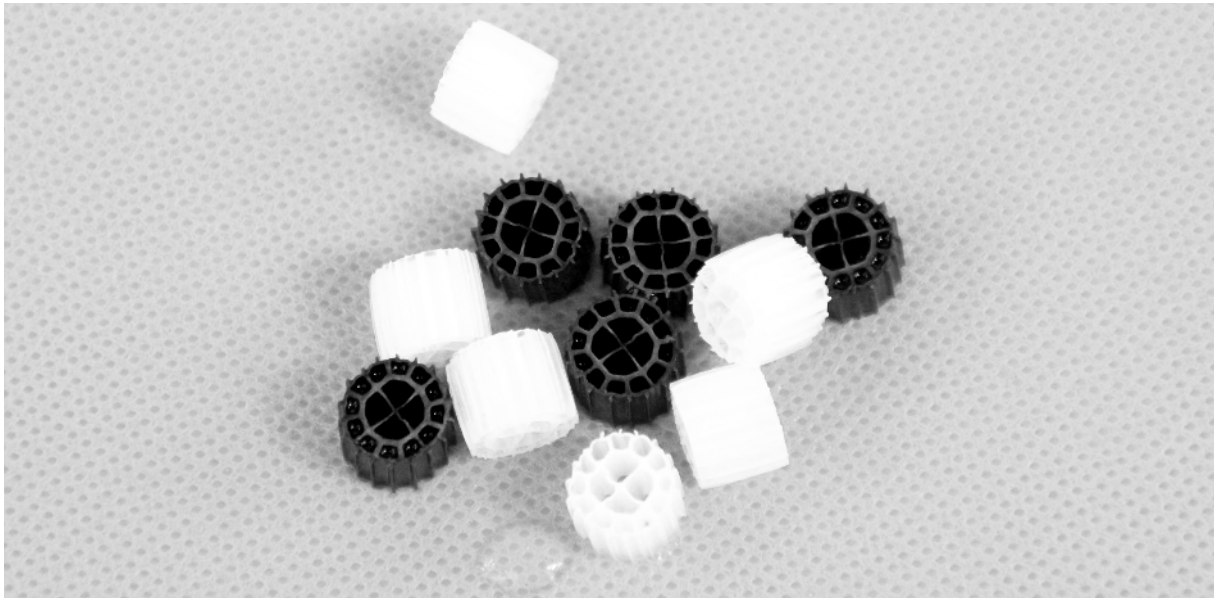
IFTS Test Report

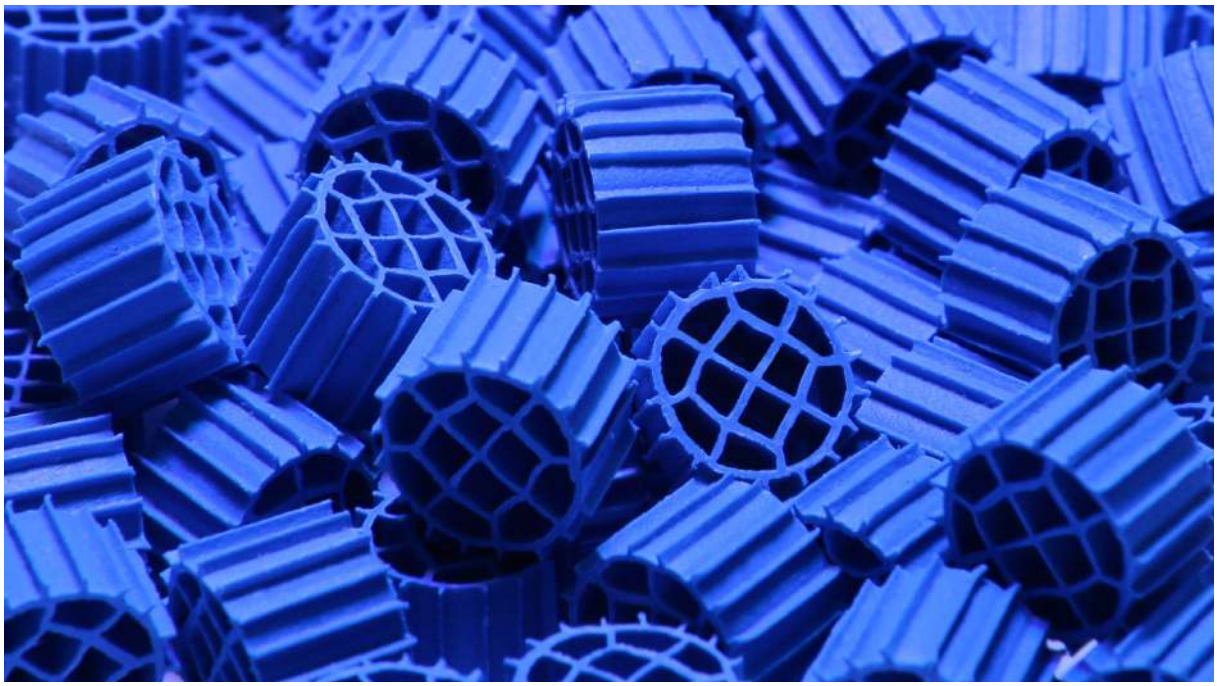
Tests to enable the benchmarking of filtration media performance, in accordance to EN16713-1

SINKING OPEN CELL MEDIA

Sinking Open Cell Media has been tested in accordance with the current *European standard EN16713-1 (2016).* All work was conducted by ***IFTS (Institut de la Filtration et des Techniques Séparatives www.ifts-sls.com)*** in France. IFTS is recognised as the leading independent accredited laboratory in Europe for the water industry specialising in water filtration media. All tests were conducted under strict ISO procedures.

Three tests are defined by the European standard to enable the benchmarking of filtration media performance.





Test 1 is a Turbidity Reduction efficiency test

The European Standard states that a ***minimum reduction in turbidity of 50%*** must be achieved in this test.

Sinking Open Cell Media has a turbidity reduction efficiency of 93.7% after 20 cycles.

Test dust is introduced to the test fluid to increase its turbidity and the turbidity is measured.

The test fluid is passed through the media 20 times.

The turbidity of the test fluid is measured at the end of every second cycle until 20 cycles is reached and then the reduction in turbidity is calculated as a %.

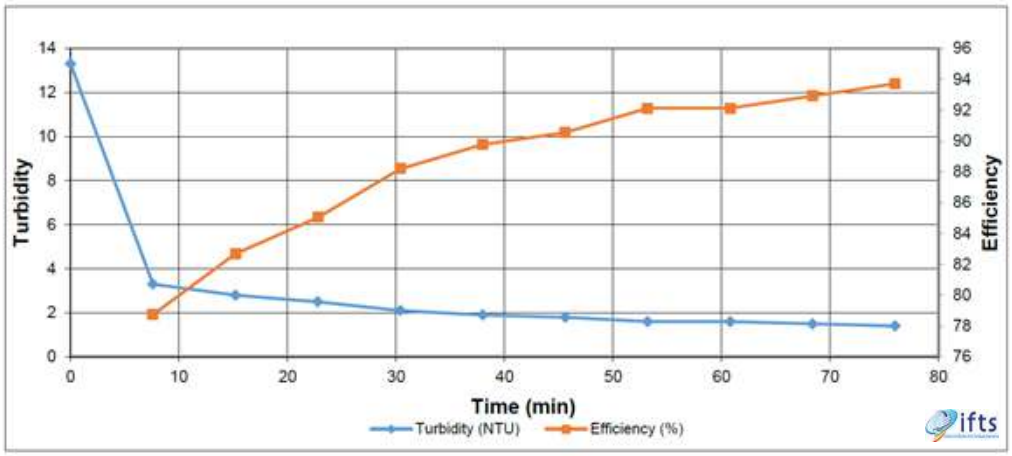


Fig. 1 : Turbidity vs. Time

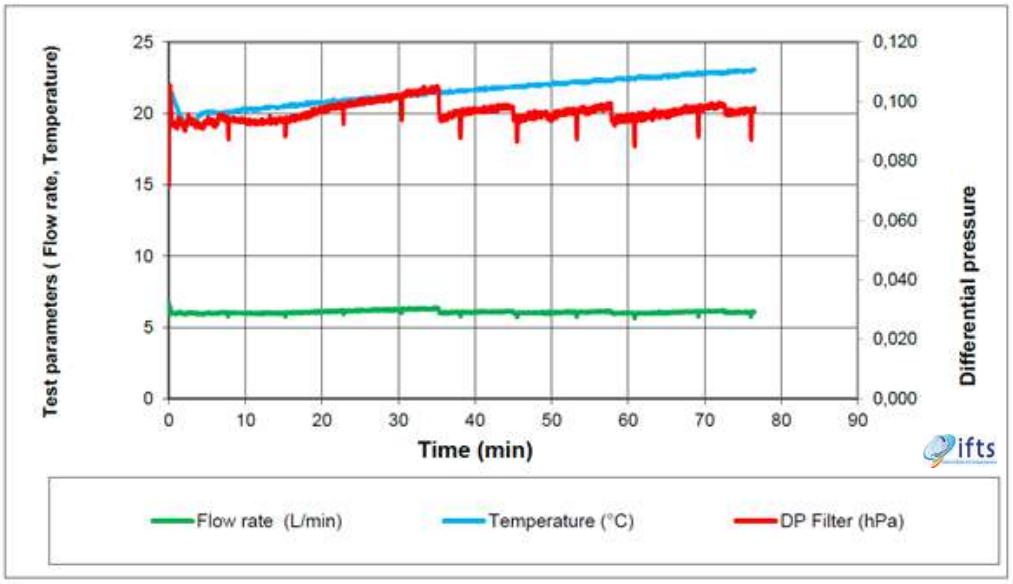


Fig. 2 : Test parameters

Test 2 is a simplified Retention Capacity test

This test measures the amount of test dust retained by the filter media.

Sinking Open Cell Media has a retention efficiency of 96.1% .
(i.e. Sinking Open Cell Media retained 96.1% of the test dust introduced to the test fluid)

The retention capacity of Sinking Open Cell Media was not reached during this testing .

This test is performed by introducing test dust to the test fluid at the beginning of each cycle.

This should cause the differential pressure to rise as the filter blocks. The European standard defines the point that the filter requires cleaning (maximum capacity) as being the point at which the differential pressure has risen by 0.7 bar.

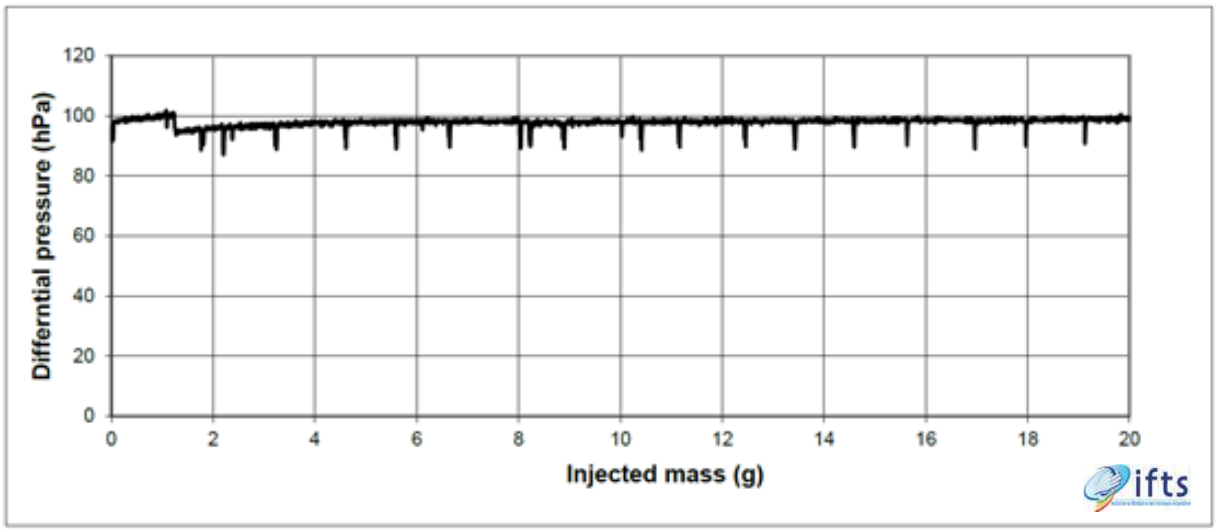


Fig. 1 : Turbidity vs. Time

By the end of this test Sinking Open Cell Media had shown no rise in differential pressure.

Sinking Open Cell Media had retained 96.1% of the contaminant that had been introduced to the test fluid.

Test 3 is a Particulate Retention Efficiency and Retention Capacity test

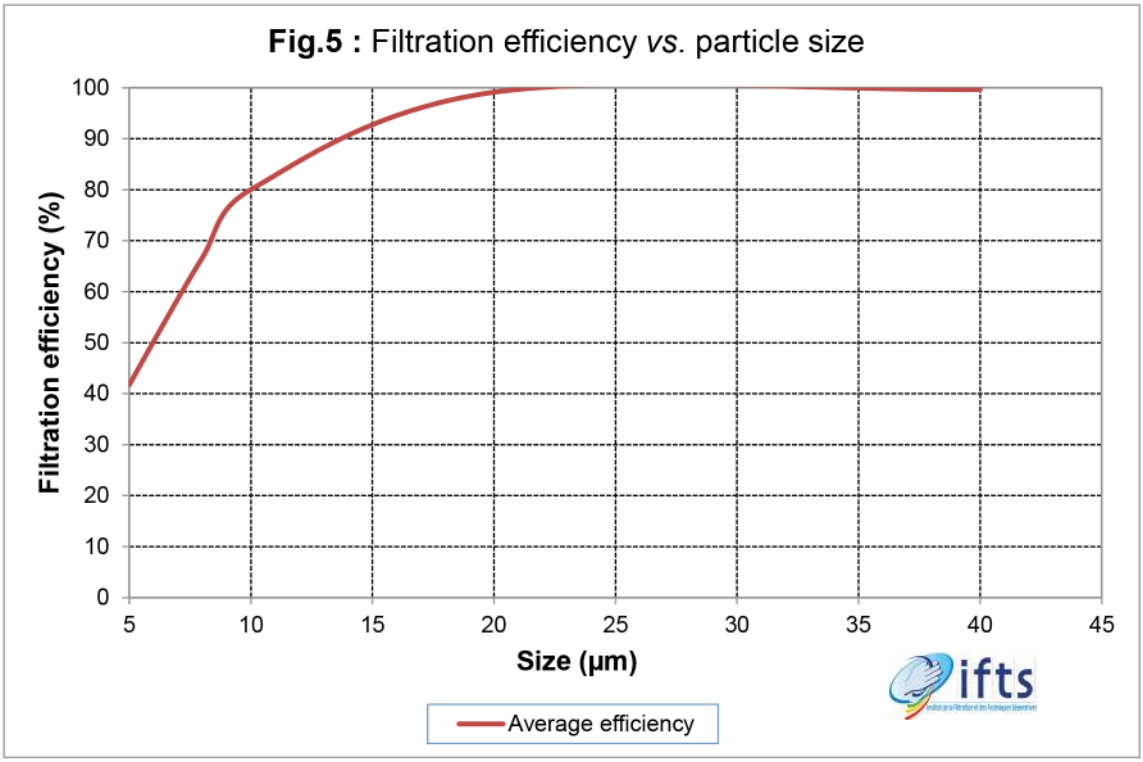
The aim of this test is to define the efficiency with which particles of specified size are removed by the filter in one pass.

And also to identify the amount of test dust that the filter can retain before it requires cleaning. This is defined in the European standard as the point at which the differential pressure has increased by 0.7bar

Contaminant was introduced constantly to the filter for 8 hours. During this period 154 grams were introduced in total with no increase in differential pressure.

The retention capacity of Sinking Open Cell Media was not reached during this testing.

The test ended because IFTS only allocate 8 hours maximum for this test.



Test 3 is a Particulate Retention Efficiency and Retention Capacity test (cont.)

We understand that sand is approx. 85% efficient at 10 microns, 95% efficient up to 25 microns and 100% efficient at 40 microns. We understand that in an equivalent test Sand blocked (i.e required cleaning) after approx. 2 hours of this test or when 45 grams of test dust had been introduced.

Sinking Open Cell Media is the first filter media to combine excellent filtration efficiency with no loss of flow.

In the above test Sinking Open Cell Media had already retained more than 3 times as much contaminant as sand at the time the test was ended. However Sinking Open Cell Media had not reached its retention capacity at this point. Had the test been continued we believe Sinking Open Cell Media could have retained as much as 10 times the amount retained by sand before requiring cleaning.

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