

**Have a
Water quality
testing
procedure?
We've got you
covered!**



Determination of Total Suspended Solids Standard Method 2540 D. and EPA Method 160.2

“Suspended solids are those that can be retained on a water filter and are capable of settling out of the water column onto the stream bottom when stream velocities are low. They include silt, clay, plankton, organic wastes, and inorganic precipitates such as those from acid mine drainage.”

Determination of Volatile Suspended Solids Standard Method 2540 E. Fixed and Volatile Solids Ignited at 550°C

“The residue of TSS, TDS after heating to dryness for a defined amount of time and at a defined temperature is defined as Fixed solids. Volatile solids are those solids lost on ignition (heating to 550 degrees C.) They are useful to the treatment plant operator because they give a rough approximation of the amount of organic matter present in the solid fraction of wastewater, activated sludge and industrial wastes.”

Glass MicroFiber Grade - TSS

Material: 100% borosilicate glass
microfiber, binder free

Particle Retention: 1.5 µm

Basis weight: 55.0 gm²

Thickness: 0.25mm
9.84 mils

Air Resistance: 33mbar @ 40cm/s
(10cm²)

Tensile Strength: 1.36Kg
3lbs MD (Machine direction)
0.90Kg
2lbs CD (Cross direction)

Description of material: This is a binderless, high efficiency (HEPA type) filter medium. Liquid filtration properties have been specifically designed for EPA methods 2540C and 2540D - testing dissolved and suspended solids in water & wastewater.

High flow rate with high capacity. This binderless borosilicate glass fiber media has no added extractables to aid in the elimination of sample contamination. Excellent wet strength.

Other common usage includes gravimetric analysis of air pollutants, membrane support pads, membrane pre-filters, clarification of reagent and buffer solutions, filtration of eluent for HPLC, moisture analysis pads.

Known competitive equivalents:
Ahlstrom 161, Whatman 934-AH® Sartorius MG/A,
Millipore APFA, MFS GA-55

934-AH® and VSS® are approved for use in Volatile Suspended Solids (V.S.S.) because of unique high heat tolerance and correct retention as specified in ASTM and EPA methods.

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The trademark 934-AH is owned by GE Healthcare/ Whatman Inc. and used under exclusive license for purposes of private label.

The trademark VSS is owned by I.W. Tremont and licensed to its distributors for use in promotion and sale of the product. No further rights implied.

Cross reference information is a compilation of the listed manufacturers equivalency charts and sales data, not actual test data.

Although reasonable attempt has been made to ensure equivalency between competitive products - individual testing is suggested for non-standard method applications.

Glass MicroFiber Grade – VSS®

Material: 100% borosilicate glass microfiber,
binder free, applications to 550°C

Particle Retention: 1.5 µm

Basis weight: 33.8lbs/3000 ft² 55.0 gm²

Thickness: 0.011 – 0.015inch 0.27 –
0.38mm 11 - 15 mils

Air Resistance: 34 – 37 mm @ H₂O @
10.5ft/min (ASTM D-2986)

Tensile Strength: 1.36Kg
3lbs MD (Machine direction)
0.90Kg
2lbs CD (Cross direction)

Additional Properties: Initial Filtration Speed
(secs/100ml) = 47-52
Wet Burst (kPa) = 3.7-4.1
Wet Burst (psi) = 0.54-0.58
Color white, surface smooth & very soft.

Description of material: This binder free material is manufactured using a proprietary glass chemistry which permits usage in high heat applications beyond typical borosilicate glass blends. Ideally suited for determination of "Fixed & Volatile Solids Ignited at 550°C" method 2540E. Low fiber shedding improves quality assurance of test results and low percentage of weight loss when used in gravimetric tests. High loading capacity is an attribute of the high surface area and complex pore structure.

Material is also compliant with the requirements of standard method 2540C & 2540D as well as EPA Method 160.2 for establishing water quality in suspended solids content. Total Suspended Solids (TSS) are defined as those which are retained by a "Glass-fiber filter disk without organic binder".

Widely used in air pollution monitoring, high temperature flue gas and filtration of high temp. solvents.

Known competitive equivalents:
Most similar to Whatman 934-AH® with high heat tolerance.
Commonly used as TSS substitute for: Ahlstrom 161,
Sartorius MG/A, Millipore APFA, MFS GA-55

I.W. Tremont
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