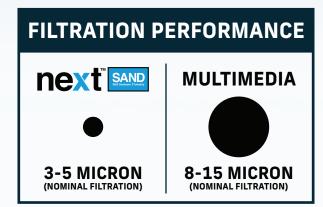
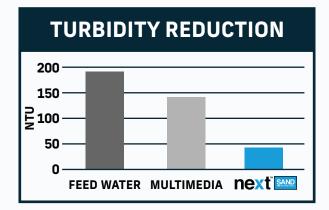


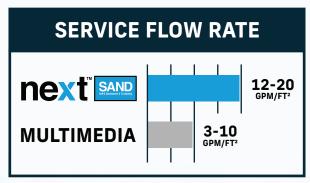


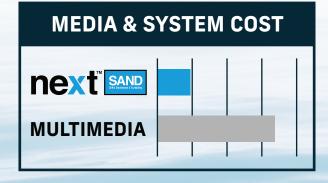
# A RADICALLY HIGH-PERFORMANCE SILT, SEDIMENT & TURBIDITY MEDIA

## WHY PAY MORE AND FILTER LESS?









#### INTRODUCTION

Certified to NSF/ANSI/CAN Standard 61, which now includes the NSF/ANSI/CAN Lead Free requirements, Next-Sand is based on a rare natural mineral that is highly processed and graded. Its unique properties allow it to radically alter the performance and cost of media filtration. The hardness, stability, and microporous character of Next-Sand makes it a perfect filtration media for virtually every application in the water and wastewater treatment industry.

#### **FEATURES**

- High Filtration Performance
  - 3-5 Micron Removal
- High-Capacity Filtration Throughout Entire Bed Depth
  - More Than Twice The Capacity Of Multimedia Filtration
- High-Flow
  - 3-4 Times That Of Multimedia With Superior Filtration
- Long Lasting Media: >5 Years
  - Not Consumed In The Process
- Simple, Periodic Backwash Required
  - Keeps The Media Clean & Operating Efficiently

#### **APPLICATIONS**

- RO Pretreatment : Superior SDI Reduction
- Cooling Towers : Unequalled Turbidity Removal
- Municipal Water Treatment : Pressure & Gravity Filters
  - Higher Flow, Lower Pressure Drop & Superior Filtration
- Wastewater Polishing: Exceptional TSS Removal
- Precipitated Metals Removal
- Car Wash Reclaim & Recycling
- Irrigation
- Paper Mill Filtration

#### **PHYSICAL PROPERTIES**

• Composition : High-Purity Alumino-Silicate

• Size: 0.4-1.4 mm (Approx. 14x40 Mesh)

Color: Dark Gray

Surface Area: 25m²/gram

• Surface Absorption : Hydrophillic

Thermal Stability: Stable ≤ 500° C

• Coefficient of Uniformity: 1.7

Bed Void Volume: 55%

Surface Charge: Net Negative

• Bulk Density: 55 lbs per ft3 (0.88 kg/L)

• Packaging: 1 ft3 Bags, 1m3 Supersacks

#### PERFORMANCE CHARACTERISTICS

• Filtration: 3-5 Micron (Nominal)

Surface Loading: 16-20 gpm/ft<sup>2</sup> (Typical)

12 gpm/ft<sup>2</sup> (Optimized For Silt, SDI & Ultrafine Particulates)



#### SERVICE FLOW: 15 GPM + FILTRATION: <10 MICRON next SAND **MULTIMEDIA EXAMPLE #1 SURFACE LOADING** 15 gpm/ft<sup>2</sup> 5 gpm/ft<sup>2</sup> **SURFACE AREA REO.** 1.0 ft<sup>2</sup> 3.0 ft<sup>2</sup> **TANK DIMENSIONS** 14" x 65" 24" x 71" MEDIA VOLUME REQ. 3.2 ft3 10.8 ft<sup>3</sup> **MEDIA WEIGHT** 216 lbs 1057 lbs **BACKWASH FLOW REQ. 17** gpm **51** gpm 510 gal **DAILY BACKWASH VOLUME** 179 gal **FILTRATION** <5 micron <10 micron **COMPARATIVE COST** 1x 3x

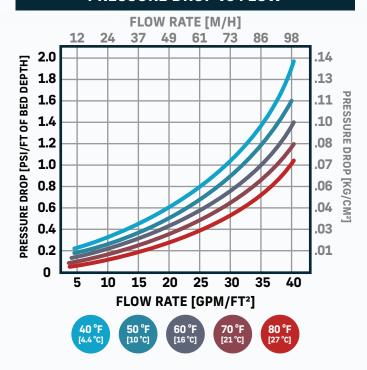
SERVICE FLOW: 45 GPM + FILTRATION: <10 MICRON					
EXAMPLE #2	next	MULTIMEDIA			
SURFACE LOADING	15 gpm/ft²	5 gpm/ft²			
SURFACE AREA REQ.	3.0 ft <sup>2</sup>	ft <sup>2</sup> 9.0 ft <sup>2</sup>			
TANK DIMENSIONS	24" x 72"	42" x 72"			
MEDIA VOLUME REQ.	9.5 ft³	35.3 ft³			
MEDIA WEIGHT	672 lbs	3469 lbs			
BACKWASH FLOW REQ.	53 gpm	153 gpm			
DAILY BACKWASH VOLUME	556 gal 1530 ga				
FILTRATION	<5 micron <10 micro				
COMPARATIVE COST	1x	3.3x			

The tables above illustrate the advantages of Next-Sand by comparing two systems designed for the same service flow; one system based on Next-Sand, and one multimedia system (gravel, garnet, fine garnet, anthracite). Each system is based on the best design practices for the respective media.

#### **OPERATING CHARACTERISTICS**

SERVICE FLOW	12-20 GPM/FT <sup>2</sup>	
BACKWASH FLOW	13-22 GPM/FT <sup>2</sup>	
BACKWASH DURATION	5-15 MINUTES	
BACKWASH EXPANSION	40% - 50%	
BACKWASH FREQUENCY	DELTA-P DETERMINED	
BED DEPTH	30"-48"(DEPENDING ON APPLICATION)	

#### **PRESSURE DROP vs FLOW**



### TYPICAL BACKWASH FLOW REQ. vs WATER TEMP\*

FLOW vs TEMP	40 °F [4.4 °C]	50 °F [10 °C]	60 °F [16 °C]	70 °F [21 °C]	80 °F [27 °C]
gpm/ft²	12.5	14.8	17.2	19.8	22.3
m/h	30.6	36.2	42	48.4	54.5

\*40% BED EXPANSION