Clack Anthracite is a select coal, mined and processed for use in water filtration. It is ideal for single bed, dual bed or multi-media filtration systems.

## Anthracite

## ADVANTAGES

- Higher service flows and longer filter runs than equivalent sand filters
  Close attention to gradation,
- Close attention to gradation, hardness and purity assures consistent and reliable performance
  Unique density allows Clack
- Anthracite to be combined with other filtration media in multi-media filters
- Lower uniformity coefficient has less oversized and undersized particles resulting in a highly uniform bed

## **PHYSICAL PROPERTIES**

- Color: Black
- Bulk Density: 50 lbs./cu. ft.
- Hardness: 3.0-3.8 (Mohs scale)
- Effective Size: #1 Anthracite: 0.6-0.8 mm #11/2 Anthracite: 0.85-0.95 mm
- #192 Anthracite: 0.05-0.95 min
  #2 Anthracite: 1.7-2.0 mm
  Uniformity Coefficienty:
- #1 Anthracite: <1.7 #1<sup>1</sup>/<sub>2</sub> Anthracite: <1.7 #2 Anthracite: <1.6
- Mesh Size:
  #1 Anthracite: 14x30
  #1<sup>1</sup>/<sub>2</sub> Anthracite: 10x20
  #2 Anthracite: 4x12
- Acid Solubility:  $\leq 1\%$
- Caustic Solubility: <1%
- Apparent Specific Gravity: 1.6 gm/cc
- Meets AWWA Standard B100-96

## CONDITIONS FOR OPERATION

- Bed depth: 24-36 in., 10-18 in multibed filters
- Freeboard: 50% of bed depth (min.)
- Service flow rate: 5 gpm/sq. ft. or higher depending upon local conditions
- Backwash flow rate:
  #1 Anthracite: 12-18 gpm/sq. ft.
  #1<sup>1</sup>/<sub>2</sub> Anthracite: 18-25 gpm/sq. ft.
  #2 Anthracite: use air scour
- Backwash bed expansion: 20-40% of bed depth



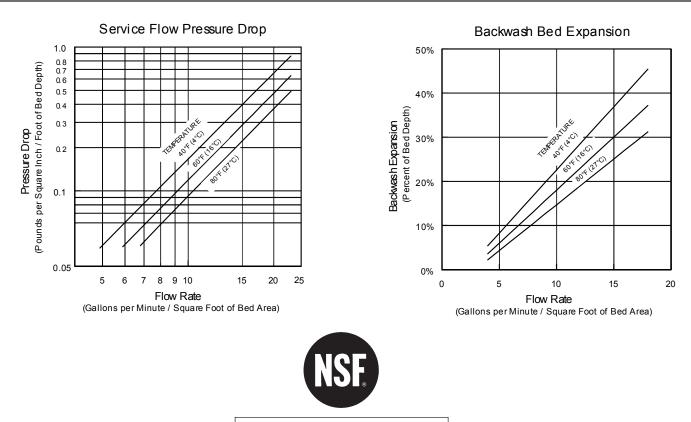
Although its potential for water treatment has been recognized since ancient times, anthracite coal was not used for this purpose until the beginning of the 20th century. Crushed Anthracite makes an excellent medium density filtration media. Clack Anthracite is mined from the finest Pennsylvania coal. It is specifically selected for water treatment, and during its production goes through several sizing inspections. Representative samples are randomly chosen for a complete laboratory quality control analysis for effective size, uniformity coefficient, specific gravity, acid solubility and hardness.

Because of its angular shape, some of the sediment penetrates deeper into the bed. When compared to equivalent filter sands, this means longer filter runs and less head loss. Backwash rates are also reduced.

Because of its unique density, Clack Anthracite can be used in multi-media filters. At 50 lbs/ft<sup>3</sup>, it will hydraulically classify and remain above heavier media such as Filter Sand or Manganese Greensand, providing a prefiltration layer.



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Part No.	Description	Cu. Ft./Bag	Wt./Cu. Ft.*	Bags/Pallet	Weight/Pallet	Pallet Dimensions
A8029	Anthracite #1 (0.6-0.8 mm)	1	50 lbs.	50	2550 lbs.	40" x 48" x 56"
A8030	Anthracite #1½ (0.85-0.95 mm	) 1	50 lbs.	50	2550 lbs.	40" x 48" x 56"
A8031	Anthracite #2 (1.7-2.0 mm)	1	50 lbs.	50	2550 lbs.	40" x 48" x 56"

\*Weight per cubic foot is approximate.



Form No. 2354 Replaces Form 1785 Updated 3/01

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The filter medias listed in this brochure do not remove or kill bacteria. Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.

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