



Akiki Engineering Est.

Water & Steam Experts



1.3. Media Catalogue

October 7, 2010

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Sand Media & Gravel Media



Sand Media

Akiki Engineering Filtration Series Media Sand, also known as 'Industrial sand', is obtained through a process of washing, drying and accurate grading of sand.

Akiki Engineering Filtration Series Media Sand is very uniform and meets tight gradations.

Gravel Media

Akiki Engineering Filtration Series Gravel Media are dredged and washed with water to remove organic impurities. The fine gravel can be dried to remove moisture.

Akiki Engineering Filtration Series Gravel Media meets these requirements: Specific gravity ≥ 2.5 , Acid solubility $\leq 5\%$, very low flats, elongates, organics and fractures.

Akiki Engineering Filtration Series Gravel Media, also known as 'Industrial Sand', is obtained through a process of washing, drying and accurate grading of sand.

Sand Media Applications:

- Slow and rapid filtration process for potable water production
- Water softening for potable water production
- Filtration process for swimming pools and industries
- Filters of water wells
- Environmental monitoring of groundwater quality
- Artificial grass sports surfaces
- Synthetic resin based or cement based products
- Refractory industry
- Foundries, trams/trains, aquaria and golf courts
- Waste-to-Energy incinerators

Sand Media Features:

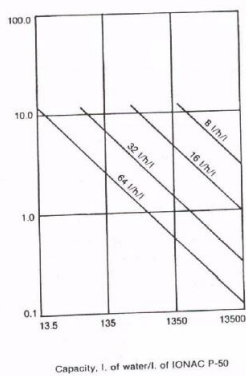
- Our filter sand is 99 % silica
- Effective size (mm) : 0.45-0.55
- Typical Uniformity : 1.5
- Lowest Uniformity : 1.4
- Shape : Rounded/sub angular
- Color : white/off-white to yellow/brown
- Hardness : 7 (Mohs scale)

Gravel Media Features:

- Fine grade (inch.) : 3/16x10
- Fine grade (mm) : 2.0-4.8

Carbon Media, Granular Activated Carbon

Fig. 3 - Capacity of IONAC P-50 For Chlorine Removal (continuous use)



Akiki Engineering Filtration Series Carbon Media is made from bituminous coal, carefully selected to produce the best possible activated carbon.

Akiki Engineering Filtration Series Carbon Media removes all the chlorine produced, as well as most other, tastes and odors. It ensures Quality Water, through its ability to absorb causatives and hold them in the activated carbon granules. The material is cleaned by backwashing, but eventually replacement can be required when its absorptive capacity is exhausted. The efficiency of taste and odor removal will depend on cleanliness of the activated carbon and therefore pretreatment should be used to remove suspended solids in excess of 15 ppm.

Applications:

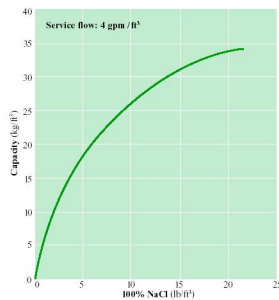
- Environmental monitoring of groundwater quality
- Waste-to-Energy incinerators
- Slow and rapid filtration process for potable water production
- Filtration process for industries
- Filters of water wells
- Artificial grass sports surfaces
- Synthetic resin based or cement based products
- Refractory industry
- Foundries, trams/trains, aquaria and golf courts

Features:

- Apparent density : 0.50-0.55 g/ml dry
- Min. for Backwash : 15 m/h
- Rising Space : 50-75 %
- Max. Service Flow Rate : 10m/h
- Min. Depth : 60 cm

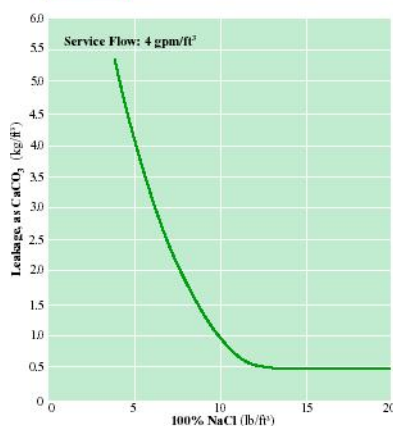
Resin Media, Sodium Softening Strong Acid Cation

Figure 1 Capacity Data



Capacity is based upon a TDS of 400 ppm and 20 grains of total hardness. As the TDS and/or total hardness increases, the capacity will decrease.

Figure 2 Leakage Data



Leakage is based upon a TDS of 400 ppm and 20 grains of total hardness. As the TDS and/or total hardness increases, so will the hardness leakage.

Akiki Engineering Filtration Series Resin Media is a bead-form, standard crosslinked polystyrene sulfonate cation exchange resin, possessing high cation exchange capacity, combined with excellent stability and operating characteristics. It contains a minimal amount of "fines" thus (-50 mesh) showing low pressure loss effects.

Akiki Engineering Filtration Series Resin Media is manufactured without a solvent and it is treated to eliminate taste, odor and color throw; its primary application is in the softening of water, for household, municipal, and industrial use.

Operating Specifications:

- Max Temperature: 140C
- Min bed depth: 60 cm
- Operating flow rate: 24/l/h/l
- Regenerant: NaCl
- Max. Turbidity: 5 NTU
- Regenerant flow rate: 4/l/h/l
- Regenerant (% Conc.): 5-26 %
- Max. free chlorine: 1 mg/l

Applications:

- Synthetic resin based or cement based products
- Water softening for potable water production
- Water softening for swimming pools and industries
- Filters of water wells
- Environmental monitoring of groundwater quality
- Artificial grass sports surfaces
- Refractory industry
- Foundries, trams/trains, aquaria and golf courts
- Waste-to-Energy incinerators

Features:

- Functional structure : R-SO₃-Na⁺
- PH range : 0-14
- Particle size : 0.4-1.2mm
- Form (ionic), as shipped : Na⁺
- Water retention : 45 % -47 %
- Copolymer : Styrene
- Active Group : Sulfonic
- Physical form : Bead form

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