Ironwood and Ironwood Powder

ADVANCED MEDIA FOR ORTHOPHOSPHATE AND SOLUBLE METALS REDUCTION

CELLULOSE BASED HEAVY METAL REMOVAL

IRONWOOD

IRONWOOD POWDER

IRONWOOD
Regenerable woodchips in upflow design.

IRONWOOD POWDER
Powdered consumable for addition into existing infrastructure.

SMART SPONGE® HM
Reduces Cadmium, Copper, Chromium, Lead, Zinc, Iron, Arsenic, Selenium, Orthophosphate and hydrocarbons. Smart sponge HM also inhibits growth of mildew and mold and can be used in a variety of applications.

AbTech's Ironwood media was created to solve a variety of environmental regulatory challenges including water eutrophication and metals contamination. The media is capable of removing Orthophosphate and a variety of soluble metals from wastewaters, suitable to help meet most discharge requirements. With retention times averaging 30-45 minutes for difficult to remove contaminants such as phosphorus and selenium. Ironwood can be applied using well known conventional methods.

APPLICATIONS

Ironwood is an innovative media using metal nanocomposites and renewable materials to adsorb contaminants. Its two media forms allow for economical flexibility in a wide variety of applications.

Ironwood Upflow Column Application

The first media form is a wood chip that is applied upflow in a filtration column design. Sizing and capacity are based upon the influent water analysis and proper retention time required to remove the contaminant(s). Upon exhaustion, the media can be regenerated onsite or offsite as a service. If onsite regeneration is preferred, then basic and acidic solutions are used to recondition the media to near full adsorptive capacity.

Powdered Consumable Application

The second media form is a powder that can be applied within a bioreactor or clarifier. The powdered form will allow for use within existing infrastructure to save on CAPEX and OPEX expenditures. Media dosing is based on the influent water analysis and proper retention time required to remove the contaminant (s).

Ironwood

Ironwood Powder

KEY BENEFITS

- Ultra low level polisher for Orthophosphate and soluble metals
- Regulatory discharge compliance
- Retention times as low as 15-20 minutes
- Co-ballast with magnetite for enhanced settling

Experts in Water

THE EXPERTISE TO CONSULT BUSINESSES ON COMPREHENSIVE WATER SOLUTIONS

Once exhausted, the media will settle to the bottom of the clarifier along with the sludge and can be dewatered and disposed. New media is introduced as needed.

Coupled with the addition of magnetite as a ballast, Ironwood powder will settle at an enhanced rate and can be recovered for multiple uses within the process until exhausted. Magnetite is a fully inert material, produced though mining operations, and possesses a specific gravity of 5.2.

SMART SPONGE HM

AbTech's Smart Sponge Heavy Metals (HM) media uses renewable resource based metal nanocomposites extruded into a macro-porous sponge. The media is in the form of hematite/magnetite and will bind to phosphorus resulting in removal rates as high as 98%. When applied as tertiary treatment, Smart Sponge HM has been show to present low capital cost, smaller footprint and significantly lower operating costs than conventional treatment systems.

ABOUT ABTECH

AbTech offers innovative solutions for Stormwater Management and Industrial Water Treatment. AbTech integrates its own advanced technologies along with third-party technologies and systems to provide customers with effective and economical solutions. AbTech products include advanced filtration media technologies and various water treatment systems.

ULTRA-LOW LEVEL POLISHER FOR ORTHOPHOSPHATE AND SOLUBLE LEVELS

REMOVALS AT A GLANCE

Orthophosphate

Copper

Lead

Zinc

Mercury

Arsenic

Cadmium

Chromium

Selenium

Molybdenum

Nickel

Iron

Manganese

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