

## Frequently Asked Questions About Adedge AD33

What is AD33?

Where can AD33 be used?

How does AD33 compare to other solutions?

### What is AD33?

AD33 is a "dry" granular iron oxide media. The iron hydroxide granules, specially developed in tandem by Bayer AG and Severn Trent Water (UK) for the removal of arsenic from drinking water, are distinguished against other adsorptive media by their finely structured surfaces in the nano range which adsorb the arsenic. Another strong benefit of the AD33 is the fact that it is a "dry" material, unlike other competing iron medias this material provides operators a much easier and safer means of handling. The tremendous ability of the media to remove arsenic and its dry form allows for a more diverse range of products.

### Where can AD33 be used?

Originally the material was developed to be used in adsorptive vessels for large municipal water treatment facilities. The Adedge team has been able to apply the AD33 into products that range from small community water systems to whole house point-of-entry systems to point-of-use products such as under-the-sink filters, faucet mount filters or refrigerator carafe filters. In addition, Adedge has also been able to apply this product in a number of non-drinking water applications such as industrial wastewater applications and environmental remediation sites.

### How does AD33 compare to other solutions?

	Granular Ferric Hydroxide	Ion Exchange	Adedge AD33	Iron Activated Alumina	Activated Alumina <sup>1</sup>	RO	Coagulation <sup>2</sup>
Removes Arsenic (III) and (V)	X		X				
High Arsenic Capacity	X		X			X	X
Ease of Material Handling		X	X	X	X		
Low Density			X	X	X		
Available in Large Quantities		X	X	X	X	X	X
Less than 0.1% water wasted	X		X	X			
Effective over wide pH range	X		X			X	
Low Backwash Flows		X	X		X		
Simple and Easy to Operate	X		X	X			
Pretreatment for Iron Required	X	X	X	X	X	X	
No Regeneration Required	X		X			X	X
No Alteration of Water Chemistry	X		X	X	X		
Practical for systems < 0.2 MGD	X		X	X			X
Non Hazardous Waste	X		X	X			
Minimal Maintenance Required	X		X	X			
Suitable for POE (Whole House)			X	X	X		
Suitable for POU devices			X		X	X	

notes:

1 assumes regeneration for optimal performance

2 includes various filtration media and microfiltration options

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