

BAYOXIDE

Bayoxide E33 is a synthetic iron oxide (Fe_2O_3) media mainly used for the removal of arsenic.



DESCRIPTION

Bayoxide® E 33 is an NSF Standard 61 approved, granular iron oxide media specifically designed for use in drinking water applications in which it serves as an effective selective filter adsorbent for removal of various species, with a focus on arsenic removal.

The ferric oxide works through absorption and will reduce arsenic levels up to $4\mu\text{g/L}$.

ADVANTAGES

- High capacity for arsenic removal : $3.6 \text{ g (As) /kg medium}$
- Removes both As (III) and As (V) below $4 \mu\text{g/l}$
- Robust dry media
- Long media life under continuous operation
- Low capital costs
- Low operating costs
- Easy disposal of spent media
- Long shelf life of dry media

OPERATING CONDITIONS

Water pH range	5.5 to 8.5
Max. water °F/°C	140°F / 60°C
Beth depth	610 - 914 mm
Freeboard	100%
Service flow rate	12.2 m/h
Backwash flow rate	19.6 - 24.4 m/h
Backwash bed expansion	22 - 27 m/h, $\geq 30\%$ bed expansion

PHYSICAL PROPERTIES

Product type	Granular ferric media formulated to remove arsenic and heavy metals from groundwaters
Apparent Density	$0.4 \text{ to } 0.6 \text{ g/cm}^3$
Specific Gravity	4.1 g/cm^3
Granule size range	0.5 to 2 mm
Effective Size	0,3 mm
Uniformity Coefficient	0.46
Adsorption capacity	Dependant on water type

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Long term exposure to arsenic is proven to have a detrimental effect on human health. Consequently the global water treatment market has been tasked with finding technological solutions to reduce arsenic levels from the old WHO permissible 50 µg/l (micrograms per litre) level to below 10 µg/l.

Severn Trent Services’ arsenic removal program incorporates a process and filter media that can be used by those feeling the pressures of regulatory compliance. The SORB 33® technology uses Bayoxide® E33 granular or Bayoxide® E33P pelletized, iron oxide media.

Both forms of the iron oxide media have a high capacity for arsenic removal. The ferric oxide absorptive media is capable of reducing arsenic levels to below 4 ug/l across a complete range of drinking and non drinking water applications and is approved for use in potable water treatment by the UK Secretary of State, French Ministry of Health and the US National Sanitary Foundation (NSF61).

Severn Trent Services’ arsenic removal experience dates back to 1999 with 16 arsenic removal treatment facilities treating over 174 Ml/d for over 500,000 customers in the UK. Severn Trent Services and its Bayoxide® E33 have over 240 full scale systems awarded worldwide, with numerous installations throughout Europe.

ORDER INFORMATION

Reference	0900010003
Description	Bayoxide E33
Quantity per pallet	20 boxes
Packaging	Box of 20kg/ 40L

CERTIFICATION

BAYOXIDE is certified to NSF-STD 61.



NSF-STD-61