bysorb™

TECHNICAL DATA SHEET

Product: Bysorb Aquaguard

Features & Benefits

- Targeted PFAS adsorption
- Supports regulatory compliance
- Consistent performance across water qualities
- Sustainable production process

Bysorb Aquaguard is a specialised activated carbon formulated for the removal of per- and polyfluoroalkyl substances (PFAS) from water. It serves municipal water authorities, industrial facilities, and environmental remediation projects with a focus on removing persistent organic pollutants. This product is engineered to deliver high performance while supporting environmental responsibility. It meets the increasing need for reliable and sustainable PFAS treatment solutions. **Bysorb Aquaguard** is available in various biomass materials, iodine numbers, and surface areas to suit specific application needs.

Applications:

Municipal Potable & Drinking Water	Wastewater	Groundwater
Landfill Leachate Treatment	Firefighting Foam Runoff Management	

Specifications

Bysorb AquaGuard	
Raw Material Options	Coconut Shell, Almond Shell, Wood, and Coal
Iodine Number	900–1100 mg/g
Methylene Blue Adsorption	200-300 mg/g
Moisture Content	4– 10 wt%
Ash Content	3 - 15 wt%
Surface Area	900 - 1100 m^2/g
Apparent Density	0.40 - 0.55 g/mL
Hardness	90 - 99%
Available in Mesh Sizes	• GAC: 12x40, 8x30, 8x16, 4x8 • PAC: 200, 325 • Pellets: 2-6mm
Packaging Options	20 KG and 500 Kg bags

*Specification values are for informational purposes only and represent typical ranges. For exact specifications, please contact Bygen.
*Determined using relevant ASTM standard unless stated otherwise
*Determined using in-house methodology

Safety Message: Wet-activated carbon can deplete oxygen from air in enclosed spaces. If use in an enclosed space is required, procedures for work in an oxygen deficient environment should be followed. For more information, contact info@bygen.com.au

PFAS Adsorption Analysis[2]

PFAS	Net Removal Efficiency[3]
PFOS	99%
PFOA	99%
PFHxS	99%
PFHxA	99%
PFBS	99%
PFBA	99%
PFAS TOTAL	99%

[2] Conducted by ADE Consulting using in-house methodology ESA-P-ORG16.
[3] Net Removal Efficiency is the total percentage mass that has been from the system irreversibly after sorption/desorption testing. Sorption is determined by tumbling stock solution of PFAS compounds, with known volume of ultrapure water and activated carbon for 24 hours then measured via liquid chromatography with tandem mass spectrometry (LC-MS-MS). Desorption is determined by tumbling the sorption test solution with fresh ultrapure water for 24 hours then analysing the PFAS presence in water samples by LC-MS-MS.
*This adsorption analysis is applicable for the specific Bysorb Aquaguard grade only.

Application Benefits:

Bysorb Aquaguard provides exceptional adsorption of PFAS, effectively extracting these compounds from water sources. Its targeted design supports treatment processes, supporting compliance with regulatory standards and mitigation of environmental risks related to “forever chemicals.” Delivers consistent performance across a range of water qualities. Moreover, it reduces the ecological burden of treatment through sustainable production methods.

Targeted Contaminants:

- PFAS: Captures compounds such as PFOA and PFOS known for their persistence.
- Organic Co-Contaminants: Adsorbs associated impurities present with PFAS.
- Fluorinated Substances: Targets related chemical derivatives.

Key Properties

- PFAS-Specific Adsorption: Engineered for high affinity with fluorinated compounds.
- Retention: Ensures contaminants remain securely bound to the carbon.
- Resilient Composition: Performs reliably in prolonged remediation efforts.
- Sustainable Advantage: Sourced from renewable materials, aligning with eco-friendly remediation goals.
- Chemical Resistance: Maintains integrity in aggressive water environments.
- Adaptable Structure: Fits seamlessly into existing treatment frameworks.

Certifications

- ISO 9001:2015
- ISO 14001:2015
- Halal
- Kosher
- NSF 61

Additional certifications may be available upon request.

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