

Bysorb AquaGuard Product Data Sheet

Activated Carbon for PFAS Removal

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.

SPECIFICATION RANGE

Raw Material Options	Coconut Shell, Almond Shell, Wood, and Coal
Type	GAC, PAC, and Pellets
Iodine Number	900–1100 mg/g
Methylene Blue Adsorption	200–300 mg/g
Moisture Content	4– 10 wt%
Ash Content	3 - 15 wt%
Apparent Density	0.40–0.55 g/mL
Hardness	90 - 99%
Available in Mesh Sizes	<ul style="list-style-type: none">GAC: 12x40, 8x30, 8x16, 4x8PAC: 200, 325Pellets: 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.

PFAS ADSORPTION ANALYSIS²

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 through sustainable production methods.

APPLICATIONS & INDUSTRY SECTORS

- Municipal Drinking Water Treatment
- Industrial Wastewater Treatment
- Groundwater Remediation
- Landfill Leachate Treatment
- Firefighting Foam Runoff Management

With multiple forms available—customised by raw material, iodine number, and surface area—Bysorb AquaGuard offers tailored performance for diverse treatment challenges.

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 available upon request, subject to availability.

NOTE

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 further details or technical support, email info@bygen.com.au

