



Food & Beverage Grade Activated Carbon

Advanced Purification Solutions for Taste,
Colour, Odour and Process Safety.

FoodMAX™

Overview

FoodMAX Series from Carbonmax Advantech is a coconut shell based steam activated carbon range developed for food and beverage process water, beverage ingredient polishing, edible liquid purification and taste-sensitive industrial applications where low extractables, taste neutrality, batch consistency and documented quality are required. Manufactured from selected coconut shell charcoal through controlled steam activation and precision sizing, FoodMAX carbons support reliable adsorption, low fines generation and consistent packed-bed or dosing performance.

FoodMAX activated carbons support reduction of free chlorine, ozone, taste and odour compounds, THMs, VOCs, dissolved organic impurities and colour-causing organic compounds where the selected grade and contact time are appropriate. Chloramine reduction should be claimed only for a suitable catalytic / specialised grade or where performance is proven by application testing.



Key Food & Beverage Applications

Beverage Water Treatment

- Removal of free chlorine, chloramine & ozone
- Reduction of THMs, VOCs, organic impurities
- Improvement of taste, odor & clarity
- Used in soft drinks, bottled water, breweries, distilleries

Alcoholic Beverage Processing

- Polishing of spirits, wines, beer process water
- Removal of off-odors and fermentation by-products
- Consistent sensory profile batch-to-batch

Sugar & Sweetener Refining

- Decolorization of sugar syrups, glucose, fructose
- Reduction of color bodies and organic residues

Fruit Juices & Syrups

- Color and haze reduction
- Removal of trace organics affecting flavor
- Stabilization of finished product quality

Edible Oil Purification

- Removal of PAHs, HPNAs, pigments
- Improved oil color and oxidative stability
- Suitable for palm oil, sunflower oil, coconut oil, specialty fats

Decaffeination & Ingredient Processing

- Coffee and tea extract purification
- Removal of residual processing contaminants

Product Forms & Available Grades

Granular Activated Carbon (GAC)	Powdered Activated Carbon (PAC) (Available on request)	Typical Mesh Sizes
Used in:		• 8 × 16
• Fixed beds	• Batch dosing	• 8 × 30
• Pressure filters	• Color and contaminant polishing	• 12 × 20
• Gravity filters	• Oil and syrup refining	• 12 × 30
• Backwashable systems		

Typical Technical Specifications (Food Grade GAC)

Parameter	Specification	Test Method
Iodine Number	900 – 1200 mg/g	ASTM D4607
CTC Activity	≥ 55 %	ASTM D3467
Moisture Content	≤ 5.0 %	ASTM D2867
Apparent Density	≥ 0.50 g/cc	ASTM D2854
Hardness Number	≥ 98 %	ASTM D3802
Ash Content	≤ 3.0 %	ASTM D2866
Extractable pH	9.0 – 11.0	ASTM D3838
Particle Size	As specified	ASTM D2862
Dechlorination Half Value Length*	1.7 – 2.5 cm	DIN 19603

*For relevant grades
(Compiled using technical ranges from the Food & Beverage brochure and granular carbon datasheets)

Standard Food & Beverage Grade Variants (FoodMax)

FoodMax-FB Standard	FoodMax-FB PRO	FoodMax-FB ULTRA
• Cost-optimized • Reliable dechlorination performance • Suitable for municipal & industrial beverage water	• Higher iodine & adsorption kinetics • Lower pressure drop • Improved service life	• Premium coconut shell selection • Enhanced micropore distribution • Critical taste-sensitive applications (premium beverages, spirits)

Hydraulic & Operational Performance

Pressure Drop Characteristics	Backwash Bed Expansion
• Optimized granule shape ensures low resistance to flow • Stable performance across recommended superficial velocities	• Uniform expansion characteristics • Minimal carbon loss • Suitable for repeated regeneration cycles

(Curves to be included graphically in final Word/PDF layout, similar to Gold Recovery datasheet style)

Packaging & Logistics

Standard Packing: 25 kg PP / HDPE woven bags with sealed PE inner liner; 25 kg PE valve sacks or laminated food-contact bags where required; 10 kg carton packing only with sealed inner PE bag; 500 kg FIBC / jumbo bags with inner liner; palletised export packing and custom private-label packing available on request. Bulk supply is available only with clean, dry, approved packing and transport controls.

(Applications aligned with industry practices highlighted in the reference Food & Beverages brochure)

Quality, Safety & Compliance

Carbonmax Food & Beverage Activated Carbons are manufactured under stringent quality controls and are suitable for compliance with:

- Food Chemical Codex (FCC) compliant grades
- ISO 9001 / ISO 14001 / ISO 45001
- GMP-aligned manufacturing practices
- REACH compliant
- Halal & Kosher (on request)
- NSF certification (planned / on request)

Each batch is supplied with:

- Certificate of Analysis (COA)
- Batch traceability documentation

Why Carbonmax for Food & Beverage Applications

- 100% coconut shell-based, renewable raw material
- Steam activation – no chemical activation residues
- High hardness → low fines & long filter life
- Consistent adsorption → repeatable taste profile
- Strong export-oriented QA systems
- Custom grades & technical support available

Disclaimer

Specifications shown are typical values and may be customised based on application and contract requirements. Actual performance depends on contaminant type, concentration, pH, temperature, flow rate, contact time, bed design, backwash practice and process conditions. Users should conduct trials and validate suitability before commercial use, especially for direct food contact, taste-sensitive, edible oil, syrup, extract and specialty ingredient applications.



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