



PURIFYING THE WORLD ONE PARTICLE AT A TIME



ABOUT AXICARB

AXICARB, a flagship of the Vadivel Group, established in 1945, is a trusted manufacturer of premium coconut shell activated carbon, serving water treatment, air purification, gold recovery, food and beverage, pharmaceuticals, and personal protection industries.

80 Years of Innovation. Global Impact. Trusted Performance.

Industrial Carbon for Global Markets

AXICARB is the industrial-grade export brand of Vadivel Cocotech, engineered to meet international standards for water, air, gold recovery, and food & beverage applications.

Mission

To engineer and supply activated carbon solutions that help protect health, enhance industrial performance, and contribute to a cleaner, safer world through sustainable manufacturing and global delivery.

Vision

To be recognized worldwide as a trusted leader in eco-conscious, high-performance activated carbon for industrial and environmental applications.





CORE VALUES

INTEGRITY



Transparent, honest, and ethical in every dealing.

SUSTAINABILITY



Eco-friendly, renewable, and responsible practices.

QUALITY & INNOVATION



World-class standards with purposeful improvements.



Putting customer success at the core of everything we do.





CERTIFICATIONS



HALAL



KOSHER



ISO 9001:2015



ISO 45001:2004



ISO 45001:2015



NSF 42, NSF 61



**AXIAQUA****AXIGOLD****AXIAIR****AXIPURE**

ONE CARBON. MANY POSSIBILITIES.

AXICARB delivers precision-crafted coconut shell activated carbon for essential purification needs across water, air, gold recovery, and food processing.



AXICARB & ESG

Sustainability is not just a practice, it's our foundation.

At AXICARB, Environmental, Social and Governance (ESG) principles are integral to how we manufacture, operate, and grow. As a global brand built on decades of legacy, we believe that trust, transparency, and long-term stewardship are essential to building a sustainable carbon future.

ENVIRONMENTAL RESPONSIBILITY

FOCUS AREA

OUR ACTION

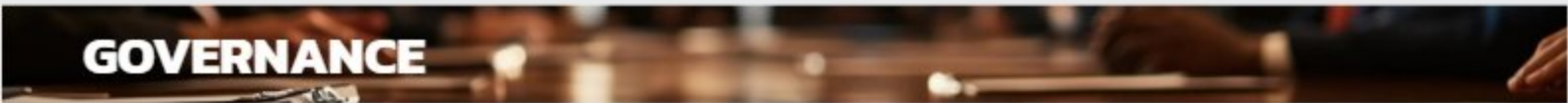
Renewable Raw Material	100% coconut shell-based activated carbon, sourced from industry by products, not deforestation.
Low Emissions Process	Continuous investment in energy-efficient kilns and dust control systems to reduce carbon footprint.
Water Conservation	Optimized acid- and water-washing systems minimize water usage and discharge.
Zero Waste Goals	By products of raw charcoal are repurposed to reduce landfill impact.

SOCIAL RESPONSIBILITY

FOCUS AREA

INITIATIVES

Fair & Safe Employment	Full compliance with labor laws, safety training, PPE, and periodic health checks.
Community Engagement	School support, skill training programs, and employment generation in rural Tamil Nadu.
Inclusivity	Equal opportunities and a respectful workplace culture across genders and departments.
Ethical Sourcing	Strong partnerships with shell suppliers who share our sustainability goals.



GOVERNANCE

FOCUS AREA	INITIATIVES
Transparent Leadership	Strong, accountable management practices with clear roles, responsibilities, and decision-making processes.
Compliance & Ethics	Adherence to national and international regulations, anti-corruption policies, and rigorous audits.
Risk Management	Continuous assessment and mitigation of operational, environmental, and financial risks.
Stakeholder Engagement	Transparent reporting to investors, partners, and communities on performance, sustainability, and corporate decisions.
Board Diversity & Accountability	Diverse and independent board members ensuring robust governance and ethical oversight.

OUR COMMITMENT GOING FORWARD

"Sustainability is a journey, one that demands consistency, responsibility and collaboration across the value chain."

Our team continues to:

- Invest in greener, more efficient production
- Train our people for tomorrow's challenges
- Act responsibly toward our environment and communities

Every particle we make carries a promise of purity, performance and purpose.



AXIAQUA



Activated Carbon Solutions For Clean & Safe Water

From drinking water to industrial and effluent treatment, AXIAQUA helps remove chlorine, odours, dissolved organics, and harmful chemicals. It's trusted across municipal systems, beverage plants, aquaculture, and water recycling units.

AXIAQUA is AXICARB's dedicated series for water purification. Manufactured from premium coconut shell carbon, AXIAQUA offers high adsorption capacity, low ash, excellent hardness, and customizable grades, making it ideal for industrial, municipal, and consumer water treatment needs.

ADVANTAGES

- High Adsorption Efficiency
- Rapid Dechlorination Kinetics
- Low Pressure Drop
- Dust-Free Operation
- High Purity for Sensitive Systems
- Excellent Flow Characteristics
- Tailor-Made Grades Available

KEY TECHNICAL BENEFITS

- Iodine Value: 950–1100 mg/g
- Hardness Number: 97–98%
- Ash Content: <1% to <4%
- pH Range: 5–11
- Apparent Density: 440–460 g/L
- Wash Types: Regular / Water-Washed / Acid-Washed





WASTEWATER & EFFLUENT TREATMENT

- Reduces BOD, COD, TOC
- Removes heavy metals, dyes, phenolics, VOCs
- Ideal for industrial discharge and landfill leachate



INDUSTRIAL WATER & BOILER FEED

- Protects resins, tubes, membranes
- Available in low-ash acid-washed grades
- Prevents scaling and corrosion in boilers



DESALINATION & PRE-RO FILTRATION

- Eliminates chlorine & organics
- Enhances membrane life
- Used in municipal & industrial desalination plants





POTABLE & DRINKING WATER

- Removes taste/odour compounds (MIB, geosmin)
- Eliminates VOCs, THMs, chlorine, and chloramines
- Ideal for POE & POU systems



DIALYSIS & ULTRA-PURE WATER

- Extremely low ash, silica, and TOC
- Neutral pH and high purity
- For medical, electronics, and precision use



BOTTLED WATER & BEVERAGES

- High performance in carbonated drinks & juices
- Ensures taste, colour, and aroma consistency
- Widely used in fruit juice and soft drink processing



GRADE COMPARISON TABLE

Grade	IV (mg/g)	Wash	Primary use
AXIAQUA-950 IV-R	950	Regular	Pools, Basic Water Filters
AXIAQUA-1000 IV-R	1000	Regular	Aquarium, Household Filters
AXIAQUA-1050 IV-A	1050	Acid-Washed	Boiler Feed, Electronics, Industrial Processes
AXIAQUA-1050 IV-W	1050	Water-Washed	Municipal Water, Filter Cartridges, POU
AXIAQUA-1100 IV-R	1100	Regular	Bottled Water, Fruit Juice, Beverage Filtration

Available in multiple mesh sizes (8x16, 8x30, 12x30, 12x40, 18x40, 20x50).





AXIGOLD

Activated Carbon Solutions For Gold & Precious Metal Recovery



AXIGOLD is *AXICARB's specialized series of coconut shell-based activated carbons* designed for gold and precious metal recovery. With engineered pore structures, high hardness, and low attrition, AXIGOLD ensures maximum recovery efficiency, reduced gold losses, and long service life across metallurgical processes.



ADVANTAGES

- Superior adsorption kinetics for gold cyanide complexes
- High hardness and abrasion resistance under agitation
- Low fines and platelet content, reducing carbon loss
- Long regeneration cycles and consistent elution performance
- Tailor-made grades for different metallurgical circuit conditions

KEY TECHNICAL BENEFITS

- CTC Activity: 45 – 60%
- Butane Activity: 17.5 – 23.5%
- Iodine Number: 950 – 1100 mg/g
- Hardness: ≥ 98 – 99%
- Apparent Density: 440 – 640 g/L
- Moisture: $\leq 5\%$
- Platelet Content: $\leq 7\%$
- Attrition: 0 – 2%



CARBON-IN-PULP (CIP)

- High-agitation, slurry-based recovery systems.
- High mechanical strength withstands aggressive mixing.
- Stable particle distribution minimizes losses.
- Enhanced kinetics (R & K values) for faster gold uptake.
- Low platelet content reduces screen loss.

CARBON-IN-LEACH (CIL)

- Simultaneous leaching and adsorption.
- Balanced porosity and surface chemistry for effective capture.
- Higher microporosity enables faster recovery.
- Long regeneration life under continuous use.
- Suitable for processing preg-robbing ores.

CARBON-IN-COLUMN (CIC)

- Clarified leachate in continuous flow columns.
- Eliminates VOCs, sulfur species, hydrocarbons
- Protects catalysts, pipes, and equipment
- Reliable in welding, dry ice, and chemical processes



HEAP LEACH RECOVERY

- Large-scale ore piles with percolation leaching.
- High hardness ensures stability during long cycles.
- Coarser particle sizes maintain void space for leach flow.
- Excellent adsorption capacity over extended periods.
- Resistant to moisture and attrition losses.

RARE & BASE METAL RECOVERY

- Tailored surface chemistry for selective adsorption.
- Recovery of silver, copper, nickel, zinc, and other metals.
- Low ash and acid-washed variants available.
- Low chloride and phosphate contamination.
- Long performance life in effluents and multi-metal circuits.

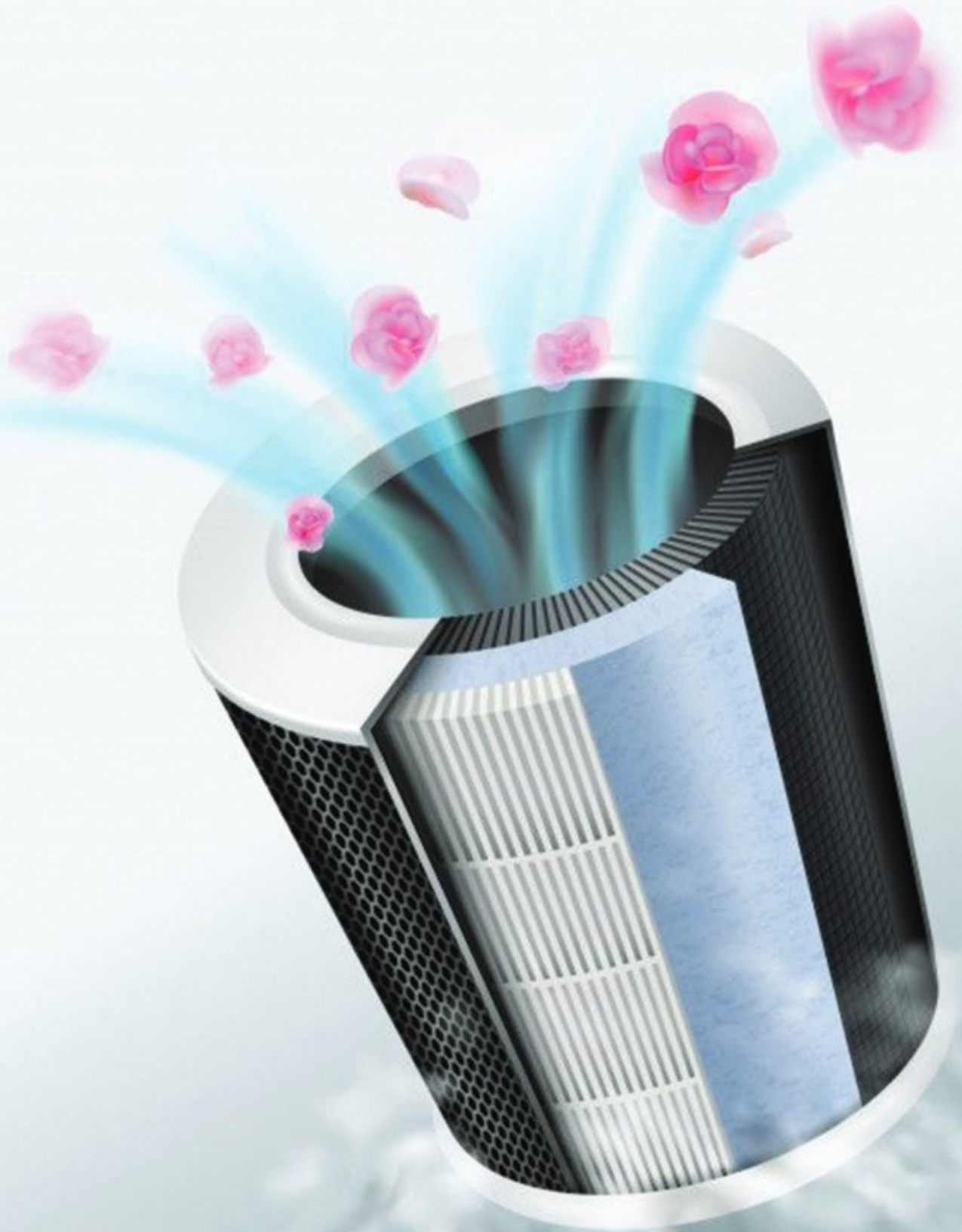
GRADE COMPARISON TABLE

Grade	IV (mg/g)	Wash	Primary use
AXIGOLD-45 CTC-R	950	45	Initial gold recovery, CIL circuits.
AXIGOLD-50 CTC-R	1000	50	Heap leaching, CIP processes.
AXIGOLD-55 CTC-R	1050	55	Elution columns, regeneration.
AXIGOLD-60 CTC-R	1100	60	High-efficiency gold recovery & refining.

Available in multiple mesh sizes (3x6, 4x8, 4x10, 6x12, 20x70, 30x60)



AXIAIR



Activated Carbon Solutions For Air & Gas Purification



AXIAIR is AXICARB's dedicated series for air and gas purification. Manufactured from premium coconut shell-based activated carbon, AXIAIR grades are engineered for high adsorption kinetics, long service life, and superior hardness. From personal respirators to industrial gas polishing, AXIAIR offers dependable protection across multiple industries.

Advantages

- Fast adsorption kinetics for VOCs and toxic gases
- High butane activity for odor and vapor removal
- Superior hardness for low dust and long bed life
- Custom grades for respiratory, industrial, and energy applications
- Renewable coconut shell-based sustainability

KEY TECHNICAL BENEFITS

- Iodine Value: 1000–1200 mg/g
- Hardness: 97–98%
- Ash Content: $\leq 5\%$ ($\leq 10\text{--}15\%$ for some grades)
- Butane Activity: 17.5–23.5%
- Apparent Density: 450–530 g/L
- Mesh Sizes: 3×6 to 30×60
- pH Range: 6–8 / 8–10 / 9–11





PERSONAL RESPIRATORS & FACE MASKS

- Removes organic vapors, SO₂, H₂S, Cl₂, NH₃, and amines
- Low breathing resistance for safe, prolonged use
- Dust-free and durable for PPE and SCBA systems



FOOD & BEVERAGE CO₂ PURIFICATION

- Removes odor, sulfur species, and hydrocarbons from CO₂
- Ensures compliance with food-grade safety standards
- Maintains taste, aroma, and product quality





INDUSTRIAL CO2 PURIFICATION

- Eliminates VOCs, sulfur species, hydrocarbons
- Protects catalysts, pipes, and equipment
- Reliable in welding, dry ice, and chemical processes



AIR FILTRATION & HVAAC

- Controls VOCs and odors in circulation systems
- Protects electronics from corrosive gases
- Applied in buildings, tunnels, submarines, consumer appliances



EQUIPMENT AIR FILTERS

- Specialized for data centers, labs, appliances
- Removes SO₂, H₂S, Cl₂ for corrosion protection





PRESSURE SWING ADSORPTION (PSA)

- High selectivity for CO₂, H₂S, and hydrocarbons
- Stable in high-pressure, cyclic operations
- Used in hydrogen recovery, refinery gas polishing, biogas upgrading



COMPRESSED AIR PURIFICATION

- Removes oil vapors, odors, and VOCs
- Ensures clean compressed air for food, pharma, and precision industries



SEWAGE & ODOR CONTROL

- High H₂S adsorption even in humid conditions
- Provides workplace safety and compliance with odor control standards





NATURAL GAS PURIFICATION & ANG STORAGE

- Removes sulfur species, mercury, and VOCs
- High density for methane storage in ANG
- Durable in LNG/CNG pressure environments



CIGARETTE FILTERS

- Adsorbs gas-phase toxicants (HCN, VOCs, aldehydes)
- Maintains flavor balance and smoking experience
- Uniform particle size and high hardness for clean filter production



GRADE COMPARISON TABLE

Grade	Iodine (mg/g)	Main Use Case
AXIAIR-1200 IV-R	1200	Respirators / Cigarette Filters
AXIAIR-1150 IV-R	1150	Food CO ₂ , HVAC, Sewage
AXIAIR-1100 IV-R	1100	CO ₂ , Compressed Air, Cigarette Filters
AXIAIR-1050 IV-R	1050	Industrial CO ₂
AXIAIR-1000 IV-R	1000	PSA, Natural Gas

Available in multiple mesh sizes (3x6, 4x8, 4x10, 6x12, 20x70, 30x60)

AXIPURE



Activated Carbon Solutions For Food & Beverage Purity



AXIPURE is AXICARB's dedicated series for food and beverage purification. Manufactured from premium coconut shell carbon, AXIPURE offers high adsorption capacity, low ash, excellent hardness, and customizable grades, making it ideal for breweries, wineries, distilleries, and juice processors worldwide.

ADVANTAGES

- High adsorption efficiency for taste, odor, and toxin removal
- Maintains natural flavor and aroma profiles
- Low dust, high hardness for efficient processing
- Ensures clarity and brilliance in beverages
- Tailor-made grades available for specific needs

KEY TECHNICAL BENEFITS

- Iodine Value: 1000–1200 mg/g
- Hardness Number: $\geq 98\%$
- Ash Content: $<1\%$ (acid-washed) / $<3\%$ (regular)
- pH Range: 6–11 depending on grade
- Apparent Density: 450–500 g/L
- Wash Types: Regular / Acid-Washed

THE WORLD ONE PARTICLE AT A TIME



BEER – TASTE & ODOR CONTROL

- Removes chlorine, chloramine, THMs from brewing water
- Polishes brewing CO2 for clean carbonation
- Ensures crisp taste and consistent quality

WINE – COLOR ADJUSTMENT & AROMA PROTECTION

- Adjusts excessive color intensity without stripping bouquet
- Removes polyphenols, precursors, and organics
- Enhances brilliance and preserves flavor balance

SPIRITS – CLARITY & SMOOTHNESS

- Removes fusel oils, volatile organics, and color bodies
- Creates smooth mouthfeel and premium clarity
- Preserves desirable notes in vodka, gin, rum, whiskey





FRUIT JUICES – MYCOTOXIN REDUCTION & PURITY

- Reduces Patulin and other mycotoxins (e.g., in apple juice)
- Removes HMFs, VOCs, PAHs and improves clarity
- Maintains natural sweetness and ensures compliance with food safety standards



GRADE COMPARISON TABLE

Grade	IV (mg/g)	Wash	Primary use
AXIPURE-1100 IV-R	1100	Regular	Juice polishing, cost-effective option
AXIPURE-1150 IV-A	1150	Acid-Washed	Beer, Wine, Spirits, Juices
AXIPURE-1200 IV-A	1200	Acid-Washed	High purity requirements in Spirits & Beer

Available in multiple mesh sizes (8x16, 8x30, 12x30, 12x40, 18x40, 20x50)

TOGETHER, LET'S PURIFY THE FUTURE

From gold mining to food processing, from air filtration to marine applications — AxiCarb delivers trusted activated carbon solutions for a cleaner, safer, and healthier world.



CUSTOMISATION OPTION



Available In Diferent Mesh Sizes



Granular or Powdered



Acid-Washed or Regular



pH:5-8 / 8-10 / 9-11



25 kg PPE Bags



Bulk Bags



FUTURE PLANS

AXICARB: From India To The World

Scaling Responsibly, Innovating Boldly, Delivering Globally.

AXICARB Is Entering A Transformative Phase, Expanding Production, Pioneering Sustainable Solutions, and Setting New Benchmarks in Activated Carbon Excellence.

GLOBAL EXPANSION & EXPORT LEADERSHIP

Europe: Strengthening warehousing, ensuring REACH compliance, building strategic partnerships

Asia-Pacific & Middle East: Expanding channels, onboarding key distributors

Americas: Developing specialized grades for niche, high-value industries

FACILITY EXPANSION & AUTOMATION

Tripling production capacity by the end of 2026

Advanced rotary kilns for superior iodine performance and ash control

Modern packaging lines for jumbo bags, drums, and specialty formats

INNOVATION IN GREEN CHEMISTRY

Cutting-edge impregnated & catalytic grades (mercury, chloramine, VOC removal)

Biochar blends and low-emission carbon alternatives

Seed-to-Shell Traceability: full transparency from raw material to product

OUR NORTH STAR

"To be the world's most trusted and responsible activated carbon supplier, delivering unmatched value, sustainable impact, and continuous innovation."

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ONE PARTICLE AT A TIME



WWW.AXICARB.COM