



PetroMAX™ MRU Series

Activated Carbon for Mercury Removal (MRU)

Sulfur-Impregnated Activated Carbon Media for Mercury Control in
LNG, Natural Gas and Cryogenic System Protection

Industry Background & Application Overview

PetroMAX MRU Series is a specialised range of chemically impregnated activated carbon media engineered for mercury removal guard-bed service in LNG, natural gas, hydrocarbon gas and selected dry process-gas applications. The media is designed to adsorb mercury and chemically retain it within the activated carbon bed, helping protect downstream aluminium heat exchangers, cryogenic systems, catalysts and sensitive process equipment.



Typical Applications

Mercury removal is not the same as acid-gas removal. H₂S, SO₂, COS, mercaptans, VOCs and moisture control require separate technical evaluation and may require different media. MRU performance must be validated against gas composition, inlet mercury concentration, moisture, pressure, temperature, flow rate and outlet mercury target.

Quality, Certifications & Packaging

Carbonmax manufacturing and quality systems comply with major global standards.



Packaging Options

Standard Packing: 25 kg lined PP / HDPE bags or 25 kg PE valve sacks for pelletised grades; 500 kg lined FIBC / jumbo bags; sealed drums, moisture-barrier packing, nitrogen-purged packing and palletised export packing available on request. Each shipment should be supported by COA, SDS, packing list and transport classification / DG declaration as applicable.



Product Variants

Carbonmax offers three performance tiers tailored to customer needs:

 STANDARD Cost-optimized, reliable performance	 PRO Enhanced adsorption, longer bed life	 ULTRA Premium grade for critical operations
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General Technical Specifications

Specification	Value
Iodine Number	1000–1400 mg/g
CTC Activity	55–70%
Hardness	≥97%
Ash Content	≤3%
Moisture	≤5%

Performance Characteristics

Pressure drop curves, breakthrough graphs, and flow diagrams are used to optimize system design. These are typically customized per project based on gas composition and operating velocity.



Pressure Drop
Curve Diagram



Breakthrough
Curve Graph



Process Flow
Diagram

Disclaimer: Specifications shown are typical values and may be customised based on application, product data sheet and contract requirements. Mercury removal performance depends on mercury species and concentration, gas composition, humidity, operating temperature and pressure, flow rate, contact time, vessel design and downstream outlet target. Users should conduct technical evaluation and obtain project-specific validation before use.

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