

AGA METAL LTD

Global Excellence in Advanced Materials & Non-Ferrous Metals

PRODUCT CATALOG

Advanced Materials & Specialty Metals

- Ultra-Pure Copper Products
 - Graphene Materials
 - Nickel Micron Wire
- Precious Metals (Pt, Pd, Rh, Ir)

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ABOUT AGA METAL LTD

AGA METAL LTD is a leading Turkish trading company specializing in non-ferrous metals and advanced materials. Established in 2023 and headquartered in Istanbul, we have rapidly grown to become a trusted partner for industries across Turkey, Europe, Central Asia, and the Middle East.

Our extensive network of suppliers and strategic partnerships enables us to source high-quality specialty metals and advanced materials from premier manufacturers worldwide. We pride ourselves on our commitment to quality, competitive pricing, and reliable logistics solutions.

Our product portfolio includes copper cathodes, aluminum alloys, brass products, ferro alloys, and now expanding into advanced materials such as ultra-pure copper isotopes, graphene, nickel micron wire, and precious metals for high-tech industrial applications.

Our Core Competencies:

- Global sourcing network with verified suppliers
- Quality assurance and material certification
- Competitive CIF pricing with flexible payment terms
- Full logistics support and customs clearance
- Technical consultation and material specification support

1. ULTRA-PURE COPPER POWDER (Cu63/Cu65)

Specification	Details
Material	Copper Powder (Cu63/Cu65 Isotope Optimized)
Standard	TU 1793-011-50316079-2004
Purity Grade	99.9999% (Six-Nines)
Packaging	2 kg PET containers, hermetically sealed
Monthly Capacity	25,000 kg (25 MT)
Trial Shipment	1,000 kg (1 MT)
Pricing	CIF basis, volume-dependent

Technical Characteristics:

- Appearance: Light brown ultra-fine powder
- Chemical purity: Main element not less than 99.9999%
- Specific natural radioactivity: $\leq 1 \cdot 10^{-11}$ Ci/g
- Isotope content: Cu63 - 69.09% ($\pm 0.05\%$); Cu65 - 30.91% ($\pm 0.05\%$)

Industrial Applications:

Ultra-fine copper powder is designed for use in electronics, electrical engineering, instrumentation, automotive, aerospace, mechanical engineering, chemical industries, and shipbuilding. Key applications include:

- Electronic circuits and micro-wire manufacturing
- Thick film pastes and electrically/thermally conductive pastes
- Electrode production and 3D printing materials
- Solar cell manufacturing and conductive coatings
- Cosmetics, pyrotechnics, and screen printing (serigraphy)
- Natural gas processing and sulfur separation
- Optical glass polishing
- Antibacterial and antifungal applications
- Catalyst production in nuclear industry applications
- Automotive tire production and anti-wear additives

2. COPPER ISOTOPE INGOTS (Cu63/Cu65)

Specification	Details
Material	Copper Isotope Ingot (Cu63/Cu65)
Standard	TU 24.44.24-001-28404905-2020
Purity Grade	99.9999% (Six-Nines)
Packaging	25 x 1 kg ingots in PET containers
Monthly Capacity	25,000 kg (25 MT)
Trial Shipment	1,000 kg (1 MT)
Pricing	CIF basis, volume-dependent

Technical Properties:

- Melting point: 1,083°C | Boiling point: 2,600°C
- Vapor pressure at 1000°C: 8.6×10^{-5} mm Hg
- Electrical resistivity: 1.68 $\mu\Omega \cdot \text{cm}$ (excellent conductivity)
- Thermal conductivity: 0.941 cal/cm \cdot °C \cdot s
- Form: Trapezoidal bar, brownish-red color

Applications:

Due to its exceptional electrical and thermal conductivity, combined with adequate ductility and mechanical strength, ultra-pure copper is one of the essential materials for electronics. Primary applications include:

- Power generator lamp electrode manufacturing (requires minimal oxygen and impurities)
- Vacuum devices and apparatus components
- Ultra-fine wire and ribbon production
- Copper mirror manufacturing
- Thermal bridges for low-temperature applications
- Microelectronics and nanoelectronics
- Nanophotonics and radiation-resistant electronics
- Chemical processing equipment

3. GRAPHENE (2D/2.5D/ACTIVATED)

Specification	Details
Material	Graphene 2D / 2.5D / Activated Graphene
Standard	GOST R 55417-2013 / ISO/TS 80004-3:2010
HS Code	3801900009
Purity Grade	99%
Packaging	227L leak-proof open-top drums
Monthly Capacity	10,000 kg (10 MT)
Trial Sample	5 kg in plastic packaging

About Graphene:

Graphene is the thinnest material ever discovered, consisting of a single layer of carbon atoms arranged in a hexagonal lattice structure. It can be called a two-dimensional object and possesses unique properties including exceptional strength, electrical conductivity, and thermal conductivity.

Application Sectors:

Electronics: Faster, more efficient transistors, diodes, and memristors

Materials Science: Enhanced mechanical properties and conductivity in composites

Energy: Solar panels, lithium-ion batteries, hydrogen fuel cells, energy harvesting

Nanotechnology: Saturable absorbers in lasers, impact-resistant armor applications

Medicine: Biosensors, drug delivery nanomaterials, brain implants, antibacterial tissues

Thermal Management: High heat conductivity for electronics cooling applications

4. NICKEL MICRON WIRE (DKRNT 0.025)

Specification	Details
Material	Nickel Micron Wire DKRNT 0.025 KT NP1
Standard	GOST 492-2006
Marking	GOST 2179-75
Diameter	0.025 mm (25 Micron)
Purity Grade	≥99.99%
Packaging	100-350g spools
Monthly Capacity	5 kg minimum, 100 kg maximum
Trial Shipment	5-30 kg

Technical Note: 1 kg of DKRNT 0.025 Nickel Wire = 228,272 meters length

Industrial Applications:

Nickel (Ni28) is one of the most demanded metals in television and radio engineering. DKRNT-0.025-KT-NP2/NP1 grade nickel micron wire is used for cathodes, radio tube grids, and microwave devices, as well as high-resistance thermocouple resistance wire.

Key application areas include:

- Electron tube anodes and atomic evaporation
- Vacuum equipment, pump grids, and vacuum valve components
- Gyrocompasses and transistor heads
- Aerospace and space industry applications
- Semiconductor manufacturing and battery production
- GPS/GPRS systems and navigation equipment
- Optical fiber and electronic connectors
- Surgical wire and medical devices
- Microelectronics and micro-welding
- Nanotechnology and low-temperature organic evaporators

5. PRECIOUS METALS

5.1 IRIDIUM POWDER

Standard	GOST 12338-2020
HS Code	7110410000
Purity	High purity grade
Applications	Catalysts, Electronics, Metallurgy, Medicine, Aerospace

5.2 PALLADIUM

Standard	GOST 31291-2018
HS Code	7110210000 / 7110290000
Purity	99.95% - 99.98%
Applications	Jewelry, Automotive (catalysts), Electronics, Medicine, Chemicals

5.3 PLATINUM

Standard	GOST 31290-2018
HS Code	7110110000 / 7110190000
Purity	99.95% - 99.98%
Applications	Jewelry, Automotive (catalysts), Chemicals, Electronics, Medicine

5.4 RHODIUM POWDER

Standard	GOST 12342-2015
HS Code	7110310000
Purity	99.95% - 99.98%
Applications	Catalysts, Metallization & Coatings, Jewelry, Electronics, Special Alloys

CONTACT US

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We will respond with a Soft Corporate Offer (SCO) within 24-48 hours.

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