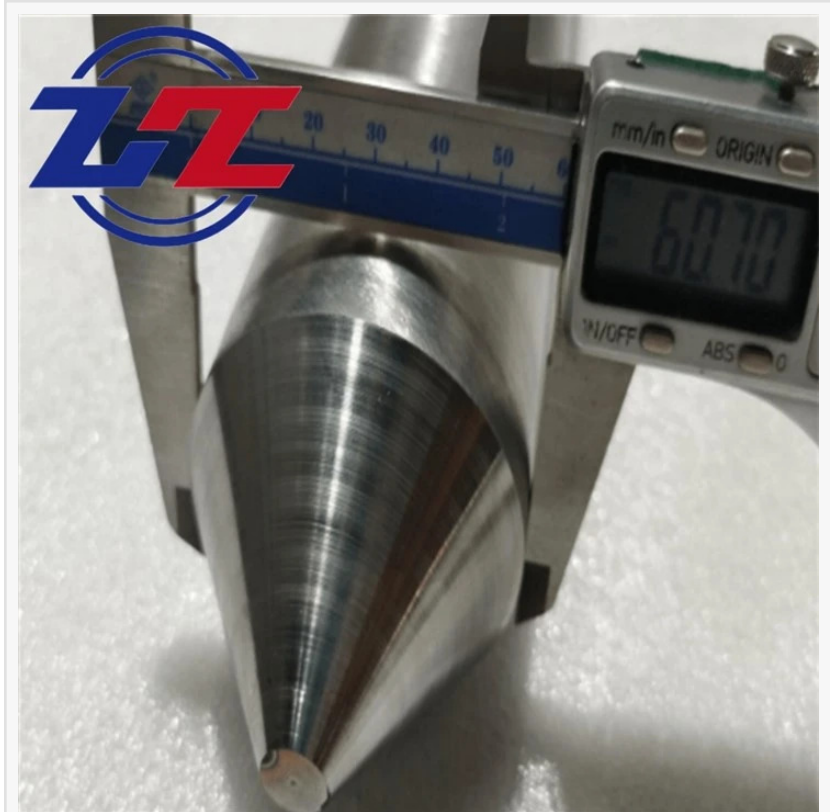


Top Niobium Hafnium Alloy C103 Manufacturer Strengthens Rare Metal Supply

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As demand for advanced materials continues to support developments in aerospace engineering, high-temperature equipment, and specialized industrial manufacturing, Shaanxi Zhongheng Weichuang Metal Materials Co., Ltd. is presenting a range of rare and refractory metal products for international customers. Located in Baoji, Shaanxi Province, China, the company specializes in metal materials, including [niobium hafnium alloy C103](#), tantalum, niobium, hafnium, titanium, zirconium, and related alloys. Its product portfolio includes processed metal forms and customized components designed to meet different industrial requirements.



Niobium Hafnium Alloy C103 Rod

High-performance metals play an important role in industries where materials must operate under demanding thermal, mechanical, or chemical conditions. Aerospace systems, vacuum furnaces, semiconductor production equipment, and chemical-processing facilities can require materials selected for specific combinations of temperature resistance, strength, corrosion behavior, and fabrication characteristics. In these applications, material selection is closely linked to operating conditions, component design, manufacturing processes, and quality documentation.

Within this specialized market, niobium hafnium alloy C103 has attracted attention for its suitability in high-temperature applications. The alloy is primarily based on niobium and hafnium, with titanium also forming part of its typical composition. Its combination of high-

temperature capability and mechanical properties makes it relevant to selected aerospace and industrial components, including rocket nozzles and other equipment exposed to demanding thermal environments.

Shaanxi Zhongheng Weichuang Metal Materials Co., Ltd. lists Niobium Hafnium Alloy C103 as a dedicated product category, with available forms including rods, plates, tubes, wires, coils, and particles. These different forms give engineers and procurement teams options when selecting material for machining, forming, fabrication, or further processing. The appropriate format depends on component geometry, production methods, dimensional tolerances, and the technical requirements of the finished application.

C103 is a niobium-based alloy commonly associated with high-temperature service. The exact performance of a component depends on its composition, manufacturing history, geometry, operating atmosphere, and exposure conditions. For this reason, buyers generally evaluate more than the alloy name alone. They may request chemical-composition data, mechanical test results, dimensional tolerances, surface-condition requirements, and traceability documents before approving a material for a particular project.

The company's published C103 information describes the alloy as suitable for applications requiring heat resistance and mechanical stability. Its product listings include C103 rods and plates, customized tubes, wire, coils, and other forms. Such variety can be useful for customers working on different stages of component development, from initial material evaluation to repeat production. For specialized projects, purchasers can discuss dimensions and drawings with the supplier to determine whether a standard or customized form is appropriate.

Material specifications are especially important when a component is intended for aerospace or other high-performance applications. A buyer may need to define the required alloy grade, dimensions, tolerances, surface finish, quantity, inspection method, and documentation before production begins. If the part will be machined or formed, the supplier and customer may also need to coordinate the intended manufacturing route. Clear specifications help reduce uncertainty and support consistency between ordered materials and the customer's engineering requirements.

Beyond C103, [Tantalum Material](#) is another important part of Shaanxi Zhongheng Weichuang Metal Materials Co., Ltd.'s portfolio. Tantalum is used in a variety of specialized applications because of its high melting point and resistance to corrosion in many chemical environments. Its suitability depends on the specific service conditions, since performance can vary with temperature, chemical composition, and the presence of other substances.

The company lists tantalum products in forms including rods, plates, tubes, wires, coils, processed parts, and particles. These forms serve different manufacturing needs. Rods and plates may be used as starting stock for machining or fabrication, while tubes and wires can support particular component designs. Processed parts can be relevant when customers require

a shape or configuration beyond a basic metal profile. Final selection depends on the required dimensions, purity, material condition, and intended application.

For businesses sourcing specialized metals, access to more than one material category can help simplify procurement discussions. A manufacturer or supplier serving both tantalum and niobium-based products may be able to respond to inquiries involving different components or production stages. However, each material must still be assessed individually against the relevant technical requirements. Shared supplier relationships do not replace the need to verify grade, chemical composition, certification scope, and suitability for the intended service environment.

Niobium Material is also featured in the company's public product range. Niobium and its alloys are used in several advanced industrial fields, including applications associated with high temperatures, superconductivity, electronics, and specialized equipment. Its performance characteristics vary according to purity, alloying elements, product form, and processing history. In practical purchasing, these differences make technical specifications and test documentation important parts of the supplier evaluation process.

Shaanxi Zhongheng Weichuang Metal Materials Co., Ltd. offers niobium in multiple processed forms, including rods, plates, tubes, wires, coils, foils, and particles. The company also lists C103 alloy products within its niobium-related portfolio. This breadth can support buyers who need to compare different product geometries or coordinate materials for multiple components. For orders involving non-standard sizes, customers can provide drawings or dimensional requirements for review.

The company's broader metal-material range includes titanium, zirconium, nickel, hafnium, tantalum-tungsten alloy, and other specialized products. It also describes deeper processing capabilities for items such as boats, crucibles, sputtering targets, coating targets, machined parts, high-temperature furnace insulation screens, heating elements, furnace bodies, and corrosion-resistant equipment. These categories serve a range of industrial and technical applications, although the exact availability and production scope should be confirmed for each order.

For procurement teams, the relationship between raw material and finished component is an important consideration. A material that performs well in principle must also be available in a form suitable for the customer's production process. Dimensional consistency, machinability, surface condition, and traceability can affect the efficiency of downstream manufacturing. When selecting a supplier, buyers may therefore assess both the material specification and the supplier's ability to support processing, inspection, packaging, and export coordination.

Quality assurance is a key part of sourcing rare metals. Depending on the application, customers may require a material certificate, chemical analysis, mechanical test report, dimensional inspection, or other documentation. They may also need to confirm whether the inspection

process covers raw material, intermediate processing, and final product. Shaanxi Zhongheng Weichuang Metal Materials Co., Ltd. states that it maintains quality controls from raw-material processing through finished-product export and identifies ISO 9001 quality management system certification in its published company information.

The company also describes testing capabilities and an independent testing laboratory as part of its production and service system. Such capabilities can be relevant when customers require verification of material properties or traceability. For technical procurement, however, buyers should request current documentation that corresponds to the specific product and batch, and confirm which tests are included in the quoted supply scope. This helps ensure that the documentation provided meets the purchaser's internal standards and any applicable industry requirements.

Customization is another consideration in the rare-metal market. Standard dimensions may be suitable for routine requirements, but specialized equipment often needs material supplied to particular sizes or configurations. The company indicates that customized dimensions can be manufactured according to customer requirements. Depending on the product, buyers can discuss the preferred form, dimensional range, quantity, processing requirements, packaging, and inspection expectations before confirming an order.

International sourcing adds further coordination requirements. Metal products may be transported by air, road, rail, or sea depending on their dimensions, weight, urgency, and destination. Protective packaging can help reduce the risk of handling damage during transportation, while clear shipping documents support receiving inspection and inventory management. The company lists wooden-box and customized packaging options for C103 products and describes several shipping methods for international orders.

Shaanxi Zhongheng Weichuang Metal Materials Co., Ltd. states that its products are exported to markets including North America, Europe, and Asia. For international buyers, the purchasing process typically involves confirming the material grade, reviewing specifications, agreeing on price and delivery arrangements, and establishing the required inspection and documentation. For high-value or technically sensitive materials, a clear approval process before mass production can help align supplier output with the customer's engineering expectations.

Baoji, where the company is located, has a recognized industrial presence in the metal-materials sector. The company's location in Shaanxi Province places it within China's wider manufacturing and export network. For overseas customers, geographic location is one factor among several in supplier selection; technical capability, material traceability, communication, delivery arrangements, and consistency across repeat orders remain important considerations.

The market for refractory and rare metals serves a broad set of industries, but requirements can differ substantially from one application to another. Aerospace components may prioritize high-temperature performance and engineering documentation, while semiconductor and vacuum-

equipment applications may require particular purity levels, surface conditions, or product dimensions. Chemical-processing equipment can place emphasis on corrosion behavior and the compatibility of materials with the operating environment. Supplier discussions therefore need to be specific to the application rather than based on broad material descriptions alone.

For C103 buyers, the evaluation process can begin with the intended operating temperature, atmosphere, mechanical loading, and component design. These factors help determine whether the alloy is appropriate and which product form should be considered. Buyers can then establish requirements for chemical composition, dimensions, tolerances, inspection, and supporting documentation. This structured approach can help engineering teams and procurement professionals compare quotations on a consistent basis.

For customers seeking a broader selection of rare metals, the company's combination of Niobium Hafnium Alloy C103, Tantalum Material, and Niobium Material offers several categories to review within one supplier relationship. Each category includes multiple product forms, allowing buyers to discuss requirements according to their fabrication process and end use. The suitability of any particular product should be established through technical review and confirmation of the applicable specifications.

As industries continue to develop equipment for demanding operating environments, the selection and verification of specialized metals will remain important parts of component design and production planning. Suppliers that can provide clearly specified materials, suitable product forms, technical communication, and supporting quality documentation can help industrial customers manage the procurement process more systematically. Shaanxi Zhongheng Weichuang Metal Materials Co., Ltd. positions its rare-metal portfolio around these needs, with C103 alloy and other niobium- and tantalum-based products forming part of its export offering.

About Shaanxi Zhongheng Weichuang Metal Materials Co., Ltd.

Shaanxi Zhongheng Weichuang Metal Materials Co., Ltd. is a metal-materials manufacturer and supplier located in Baoji City, Shaanxi Province, China. The company specializes in rare and refractory metals, including niobium hafnium alloy C103, tantalum, niobium, hafnium, titanium, zirconium, nickel, and related alloys. Its product range includes plates, strips, foils, rods, wires, tubes, coils, particles, and processed metal components.

The company also describes capabilities involving boats, crucibles, sputtering targets, coating targets, machined parts, high-temperature furnace insulation screens, heating elements, furnace bodies, and corrosion-resistant equipment. Its public information highlights quality management, testing, customized dimensions, and export services for customers in international markets. Buyers can contact the company to confirm product specifications, material documentation, processing options, packaging, and delivery schedules for individual projects. Further information about the company's products and services is available at www.ta-nb.com.

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