



TUNGSTEN POWDER METALLURGY PRODUCTS

Tungsten Crucibles

This specification covers sintered and machined Tungsten Crucible Shapes.

CHEMICAL COMPOSITION

Chemical composition for powder lots shall conform to the specification as shown below: (Chemical acceptance is based on the elements listed below.)

Tungsten <i>(By Difference)</i>	min.	99.95 %
Aluminum	max.	0.002 %
Calcium	max.	0.003 %
Chromium	max.	0.002 %
Copper	max.	0.002 %
Iron	max.	0.003 %
Lead	max.	0.002 %
Magnesium	max.	0.002 %
Manganese	max.	0.002 %
Nickel	max.	0.003 %
Silicon	max.	0.002 %
Tin	max.	0.002 %
Titanium	max.	0.002 %
Carbon	max.	0.005 %

STRUCTURE



¹ Information on testing methods on request.

MECHANICAL PROPERTIES

Per negotiation at point of inquiry

PHYSICAL CHARACTERISTICS:

Crucible Type	Material		Property	Dimensions (mm)		
		Purity (min)	Density*	Outer Diameter	Inner Diameter	Height
Max. 1000 kg Sapphire ingot	Tungsten (W)	99.95%	~17.8 g/cc 92% min	600	500	1000

* can be adjusted to meet customer needs

Standard Tolerance Range		Minimum Tolerance Range		Inner Surface Roughness Ra		
Diameter (mm)	Height (mm)	Diameter (mm)	Height (mm)	Sintered Blank	Lathe Turned	Ground
±0.5	±1.0	±0.3	±1.0	~3.2	Customer Specific	Customer Specific

Hazards identification in Advertising (Directive 67/548/EEC Article 26 and Directive 1999/45/EC Article 13) none.

IDENTIFICATION

The material will be identified with appropriate specification number, ingot or lot number, and nominal size. Shipping containers will be marked with the name of the customer and the purchase order number.

REJECTION

H.C. Starck must receive written notification of rejected material with the reason for rejection. The right is reserved to inspect rejected material at customer plant for claim validation. The material may be returned only after proper authorization.



ELMET TECHNOLOGIES

1560 Lisbon Street • Lewiston, Maine 04240

P +1.207.333.6100

sales@elmettech.com

www.elmettechnologies.com

The conditions of your use and application of Elmet Technologies products, technical assistance, and information (whether verbal, written or by way of production evaluations), including any suggested formulations and recommendations, is your responsibility. Therefore, you are encouraged to test our products and review any technical assistance and/or information you may receive from Elmet Technologies with your own resources, and determine to your own satisfaction whether Elmet Technologies products are suitable for your intended uses and applications. This application-specific analysis should include at minimum testing to determine suitability for the intended use from a technical as well as health, safety, and environmental standpoint. Any technical assistance and/or information provided by Elmet Technologies is given without any express or implied warranty or guarantee. You agree and understand and hereby expressly release Elmet Technologies from all liability, in tort, contract or otherwise, incurred in connection with the use of our products, technical assistance and/or information, except as may be contained otherwise in a written agreement between you and Elmet Technologies. Any statement or recommendation not contained herein or in a written agreement between you and Elmet Technologies is unauthorized and shall not bind Elmet Technologies. Nothing herein shall be construed as a recommendation to use any Elmet Technologies products in a manner violative of the intellectual property rights of any third party. No license is implied or granted under or to Elmet Technologies intellectual property. All product deliveries are based on the then current product specification and Elmet Technologies' Conditions of Sale. IN NO EVENT WILL ELMET TECHNOLOGIES BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.