

Technical Data Sheet

Hafnium Powder

INTRODUCTION

ATI produces hafnium powder as per the general capabilities mentioned previously. The purities available are suited for either commercial or nuclear applications. Nuclear grade can be used to produce rate-control parts and various apparatus in nuclear electrical power generators as well as applications in nuclear fuel processing. Commercial grade forms a basis for various chemicals, sputtering targets, pyrotechnical applications, plasma spray coatings, and alloy additions. The table below gives a TYPICAL chemical analysis based upon nominal mesh sizes stated. Please refer to general powder capabilities and testing.

All elements are shown in ppm except zirconium. Other screen sizes are available on request.

TYPICAL COMPOSITION

Table 1. Typical Chemical Analysis (Commercial)							
Element	Nominal -100 x down	Nominal -325 x down					
Carbon	< 150	< 150					
Nitrogen	< 250	< 250					
Hydrogen	< 250	< 250					
Oxygen	< 2500	< 3500					
Aluminum	< 100	< 100					
Niobium	< 100	< 100					
Copper	< 100	< 100					
Iron	< 250	< 250					
Tantalum	< 200	< 200					
Tungsten	< 150	< 150					
Zirconium	< 4.5%	< 4.5%					
Hafnium	Balance	Balance					

NOMINAL HAFNIUM POWDER TECHNICAL DATA

All elements are shown in ppm except zirconium. Other screen sizes are available on request.

Table 2. Typical Sieve Analysis										
Nominal Mesh	20 Mesh Sieve	40 Mesh Sieve	60 Mesh Sieve	80 Mesh Sieve	100 Mesh Sieve	140 Mesh Sieve	200 Mesh Sieve	270 Mesh Sieve	325 Mesh Sieve	Pan
-IOOXdown					< 9	28	29	18	9	10
-325Xdown									< 9	> 91

Table 3. Density (g/cc)					
Nominal Manufactured Mesh	Tap Density (for info only)				
-IOOXdown	6.9				
-325Xdown	5.3				

Data are typical, are provided for informational purposes, and should not be construed as maximum or minimum values for specification or for final design, or for a particular use or application. The data may be revised anytime without notice. We make no representation or warranty as to its accuracy and assume no duty to update. Actual data on any particular product or material may vary from those shown herein. © 2014 ATI. All rights reserved.

Allegheny Technologies Incorporated 1000 Six PPG Place Pittsburgh, PA 15222-5479 U.S.A. www.ATImetals.com