

Tungsten Powder for High Density Alloy

Appearance: Dark grey without clump or visual impurities.

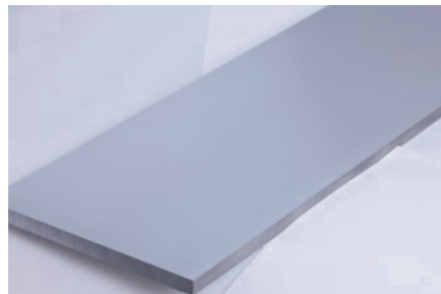
Grade and Chemical Composition

Grade		FWG-1	FWG-2	FWG-3	FWG-4	Analysis (equipment)
Main content (wt%,≥)		99.95	99.95	99.95	99.95	
Impurities content (ppm, ≤)	Fe	50	50	50	50	AAS
	Ni	20	30	30	20	
	Si	20	20	30	20	
	K	10	10	-	10	
	Na	20	20	-	20	
	Cr	10	10	-	10	
	Co	10	10	-	10	ICP
	Al	15	20	20	20	
	Cu	15	20	10	20	
	Ca	10	20	20	10	
	Mn	10	10	-	10	
	Mg	10	20	20	10	
	Mo	200	100	100	200	
	Pb	5	10	-	10	
	Sn	5	10	-	10	
	Sb	10	20	-	20	
	As	10	-	-	15	
	P	10	-	-	10	Colorimetry
	S	10	-	-	10	C/S analyzer
C	20	30	50	30	O/N analyzer	
O	700	1200	1500	700		
Standard		GB1077A				
Remarks: The main content is calculated by deducting the impurities content (gas element is excepted).						

Physical Property of Tungsten Powder

Grade	Fsss Particle Size				Scott Density (g/cm ³)	Tap Density (g/cm ³)	Sieving	
	Average particle size (μm)		Porosity				Sieve size (μm)	Percentage (wt%)
	As-Supplied	Lab Milled	As-Supplied	Lab Milled				
FWG-1	2.50~3. 50	2.15~3. 15	0.600~0. 700	0.440~0. 540	2.85~3. 35	5.0~7. 1	>106	<0. 1
							<75	≥97
FWG-2	2.00~4. 00	-	-	-	2.50~4. 00	-	>106	<0. 1
							<75	≥97
FWG-2	2.00~4. 00	-	-	-	2.50~4. 00	-	<45	≥97
FWG-4	2.50~3. 00	-	0.600~0. 700	-	2.85~3. 35	-	>106	<0. 1
							<75	≥97
Remarks: The Scott density is as supplied status.								

酸洗掺杂钨粉/Doped acid-washed tungsten powder



» 用途

Application

酸洗掺杂钨粉主要用作生产工业炉用耐高温板材、棒材的原材料。

Mainly used as raw material for high temperature resistant plate and rod used in industrial furnace.

» 物理性能

Physical Properties

费氏平均粒度：3.0~4.0 μ m。

Average F.S.S.S. particle size: 3.0~4.0 μ m.

粒度分布：按客户要求提供。

Particle size distribution : Upon the request of customer.

» 化学成份

Chemical compositions (单位unit: ppm)

产品名称 Product name	W含量 Tungsten content (wt%)	Fe	Mo	K	Al	Si	O	其他 Others
掺杂钨粉 Doped tungsten powder	≥ 99.4	≤ 20	≤ 30	60~160	30~100	150~330	≤ 2000	≤ 10



Morphology:

We can do morphology test as requested for FWG-1 and FWG-4.

Particle Size Distribution:

1. The particle size (Lab milled) of grade FWG-1 is listed in below table.
2. The particle size (Lab milled) of grade FWG-4 is as per below:
 - a. PSD will not be tested if the fisher size does not exceed 3 μ m.
 - b. The content of +10 μ m is 0% if the fisher sizes exceeds 3 μ m.

The particle size distribution of FWG-1 and FWG-4 (Lab milled & Nephelometry)

Particle range (μ m)	Percentage (wt%)	Particle range (μ m)	Percentage (wt%)
≤ 1	2.0~8. 0	6~7	3.0~9. 0
1~2	10.0~23.0	7~8	0.0~8. 0
2~3	15.0~23.0	8~9	0.0~5. 0
3~4	15.0~23. 0	9~10	0.0~3. 0
4~5	12.0~17. 0	10	0.0
5~6	7.0~15. 0	-	-

Customer can choose the chemical composition & physical properties according to the requirements and application. We can decide the details after discussion.

Packaging:

Products are packaged in iron drums or carton drums with vacuum sealed plastic bags.

Instruction for Storage:

Products should be stored in a dry, ventilated, acid & alkali free environment to prevent them from moisture, oxidation and corrosion of active chemicals. The storage period should not exceed three months. They should be used in half a month after unpacking.

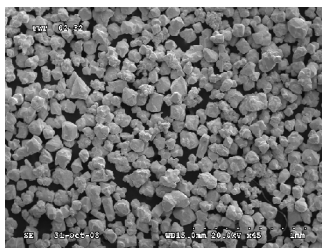
Tungsten Powder for Spraying

Process: The product is produced in special reduction process using tungsten oxide as raw material.

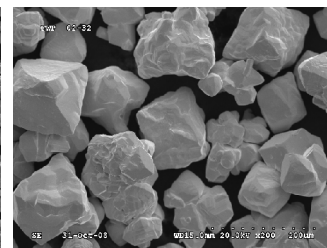
Application: It is used as plasma and HVOF coating material.

Features: Uniform particle size, excellent flow ability, and corrosion resistance.

Appearance: Uniform light grey color



Morphology (45×)



Morphology (200×)

Chemical Composition

Grade		FWP-1	Analysis (equipment)
Main content (wt%, ≥)		99.90	
Impurities (ppm, ≤)	Fe	300	AAS
	Ni	50	
	Si	100	
	K+Na	30	
	Al	50	ICP
	Cu	20	
	Ca	40	
	Mn	40	
	Mg	40	
	Mo	100	
	Pb	7	
	Bi	7	
	Sn	7	
	Sb	10	
	As	20	
	P	40	Colorimetry C/S analyzer O/N analyzer
	C	100	
	O	2000	
Standard		GB/T3458	
Remarks: The main content is calculated by deducting the impurities content (gas element is excepted).			

Grade and Physical Property

Name	Grade	Particle size (mesh)	Sieving	Apparent density (g/cm ³)
Tungsten powder for spraying	FWP-1	200-325	+200mesh: ≤10% -325mesh: ≤10%	5.5-9.0

Customer can choose the chemical composition & physical properties according to the requirements and application. We can decide the details after discussion.

Packaging:

Products are packaged in iron drums or carton drums with vacuum sealed plastic bags.

Instruction for Storage:

Products should be stored in a dry, ventilated, acid & alkali free environment to prevent them from moisture, oxidation and corrosion of active chemicals. The storage period should not exceed three months. They should be used in half a month after unpacking.

Physical Property of Tungsten Plate

Name	Grade	Density (g/cm ³)	Grain Size (pc/mm ²)
Tungsten Plate	WBP	18.5-18.8	1000-2500

Customer can choose the chemical composition and physical properties according to the requirements and application. We can decide the details after discussion.

Packaging:

Tungsten powders are packaged in iron drums or carton drums with vacuum sealed plastic bags.

Tungsten plate are packaged in wooden cases or cartons, with plastic foam in between.

Instruction for Storage:

Tungsten powders should be stored in a dry, ventilated, acid & alkali free environment to prevent them from moisture, oxidation and corrosion of active chemicals. The storage period should not exceed three months. They should be used in half a month after unpacking.

Tungsten plate can be brittle. They should be handled carefully during unpacking and moving.

酸洗纯钨粉/Pure acid-washed tungsten powder

» 用途

Application

酸洗纯钨粉主要用作生产钨靶材和其它高纯度钨制品。

Mainly used to produce tungsten target and other high purity tungsten products.

» 物理性能

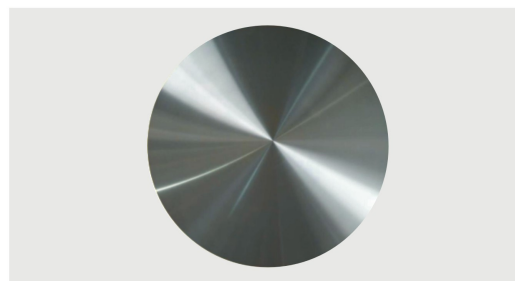
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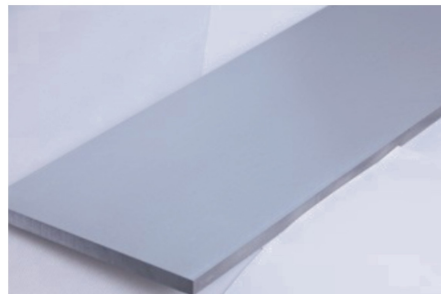


» 化学成份

Chemical compositions (单位unit: ppm)

牌号 Code	W含量 Tungsten content (wt%)	其它元素最大含量 Max. content of impurities (ppm)					
		K	Fe	Al	Mo	As/Ca/Cr/Mg/ Mn/Na/Ni/Ti/Si	Bi/Cd/ Cu/Pb/Sb/Sn
XW11	99.99	≤ 5	10	5	20	10	5
Analysis method	Minusing	AAS	AAS	ICP	ICP	AAS/ICP	ICP

酸洗掺杂钨粉/Doped acid-washed tungsten powder



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Application

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