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World Tungsten

Industry Study with Forecasts for **2019 & 2024**

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World Tungsten

Industry Study with Forecasts for ***2019 & 2024***

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World Tungsten

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Gains will be fueled by growth in construction, mining and manufacture of aerospace, machinery, and metal products using tungsten cutting tools, dies, drills, weights, and wear parts.

World demand to rise 4.2% annually through 2019

Global demand for processed tungsten is projected to advance 4.2 percent annually to 146,400 metric tons in 2019. Sales gains will be fueled by solid growth in fixed investment expenditures, especially in construction spending and mining activity. Higher manufacturing output will also support gains, particularly in the key aerospace, machinery, and metal products sectors. Increased production in these industries will spur demand for tungsten-containing cutting tools, dies, drills, weights, and wear parts, among others.

World Tungsten Demand, 2019
(146.4 thousand metric tons)

Asia/Pacific region to remain dominant market

The Asia/Pacific region, led by China, will continue to dominate both tungsten supply and consumption. In 2019, China alone will account for over half of sales and three-fifths of output. The country's outsized influence on the global tungsten market is a combination of its vast tungsten reserves (over half of known tungsten deposits in the world) and the Chinese government's support of industries that manufacture value added tungsten products. These factors, along with China's restrictions on exports of tungsten ore, caused a rapid spike in prices over the past decade, although this will moderate through 2019 as export restrictions are eased. China's historically lower mining and labor costs have also played a role in the size of its market and output, although labor costs in the country are rising and increased use of scrap across the globe is making processed tungsten sourced from outside of China more attractive.

India will be the fastest growing major market for processed tungsten through 2019, fueled by a rapidly expanding manufacturing sector with increasingly advanced technological capabilities. Other nations that are expected to record above average tungsten sales increases through 2019 include Turkey, Mexico, China, and Taiwan, as demand in these countries will be driven in large part by rising output of motor vehicles and other durable goods. Demand in the US, Japan, and Western Europe will post slower growth.

Tungsten alloys to record fastest growth

Tungsten alloys will record the fastest growth of any major product category, stimulated largely by aerospace manufacturing increases. However, cemented carbides will continue to account for the largest share of processed tungsten consumption due to their widespread use in replaceable cutting tools and inserts. Mill product sales in lighting applications will shrink through 2019 due to phaseouts of incandescent bulbs across the globe. However, tungsten mill products will demonstrate steady growth, supported by demand for the metal in a number of other electrical and electronic applications.

World Tungsten

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Sample Text, Table & Chart

TABLE VII-5

JAPAN: TUNGSTEN SUPPLY & DEMAND
(metric tons)

Item	2004	2009	2014	2019	2024
Population (million persons)					
GDP/capita					
Gross Domestic Product (bil 2013$)					
Gross Fixed Investment (bil 2013$)					
Manufacturing Value Added (bil 2013$)					
Machinery MVA (bil 2013$)					
kg tungsten/capita					
kg tungsten/mil $ GDP					
kg tungsten/mil $ MVA					
Tungsten Demand					
net exports					
Tungsten Shipments					

Source: The Freedonia Group, Inc.

SAMPLE TABLE

ASIA/PACIFIC

Japan: Tungsten Applications

Growth in demand for tungsten outpaced the regional av
tween 2009 and 2014, as demand in the country rebounded f
recession-impacted low point. Gains were stimulated by reb
fixed investment spending and manufacturing activity, and a
strong recovery was recorded in the key machinery productic
Catalyst demand and lighting output continued to decline du
span, however.

Demand for tungsten in Japan is projected to climb at a
annual rate through 2019 ... will repr
deceleration from the rap ... eriod wl
market rebounded from i ... perform
will also be the slowest r ... tungster
Growth in fixed investm ... activity
chinery output are all exp ... gh 2019, and motor
vehicle output will contin ... possible market
gains for the metal. In addition, tungsten-containing product suppliers
will continue to expand operations in faster growing markets, further
limiting sales gains for processed tungsten materials.

SAMPLE TEXT

Sales for all of the major categories of processed tungsten will
expand at fairly similar rates through 2019. Cemented carbides will
continue to represent an unusually large share of the market compared to
other Asia/Pacific countries, accounting for 70 percent of the Japanese
market. This is due to the nation's focus on highly advanced
and tooling equipment, requiring the durability and precisior
sten carbide tools provide. Chemical and other types of tung
remain the second most widely used processed tungsten proc
11 percent of demand; Japan is the only major tungsten mark
chemicals make up such a large share of national tungsten sa
and mill product demand will continue to account for relativ

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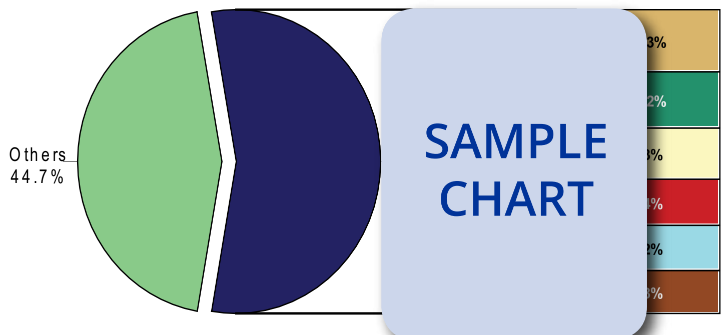
CHART IX-1

WORLD PROCESSED TUNGSTEN MARKET SHARE BY COMPANY
($5.5 million, 2014)



SAMPLE CHART

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TABLE VII-6

JAPAN: TUNGSTEN DEMAND BY PRODUCT & APPLICATION
(metric tons)

Item	2004	2009	2014	2019	2024
Asia/Pacific Tungsten Demand	2				0
% Japan					
Tungsten Demand					
Cemented Carbides:					
Cutting Tools & Inserts					
Wear Parts & Other					
Tungsten Alloys:					
Tool Steels					
Other					
Tungsten Mill Products:					
Lighting					
Other					
Tungsten Chemicals & Other:					
Catalysts					
Other					0

Source: The Freedonia Group, Inc.

SAMPLE TABLE

COMPANY PROFILES

WOLFRAM Company CJSC
Slavyanskaya Square, Building 2/5/4
Moscow 1037
Russia
7-495-784-68
http://www.wo

Annual Sales:
Employment:

SAMPLE PROFILE

Key Products: ioxide; blue tungsten oxide; tung wders; and tungsten bars, plates, rods, and wire

WOLFRAM is involved in mining, producing, and selling tungsten, molybdenum, and rhenium products. The Company is privately held.

The Company participates in the world tungsten industry through the mining and production of various tungsten products. WOLFRAM's primary tungsten mining operation is the Tyrnyauz Mining & Ore-Dressing Integrated Plant JSC subsidiary (Russia), which mines and processes scheelite from Russia's Tyrnyauz mine. According to the Company, this mine holds Russia's largest tungsten deposit, accounting for approximately half of Russia's tungsten reserves.

WOLFRAM manufactures tungsten products via such Russia-based subsidiaries as Hydrometallurg JSC, Unecha Refractory Metals Plant, and Pobedit JSC. Hydrometallurg operates a plant in Nalchik, Russia that makes ammonium paratungstate (APT), tungsten trioxide (WO_3), and blue tungsten oxide using scheelite sourced from Mining & Ore-Dressing Integrated Plant. APT from Hydrometallurg can be used to

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STUDY COVERAGE

World Tungsten is a Freedonia study that presents historical data (2004, 2009 and 2014) plus forecasts (2019 and 2024) for supply and demand, as well as demand by application, in six regions and 16 countries. This study also assesses key market environment factors, analyzes the industry structure, evaluates company market share and profiles 22 global industry players.

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Related Studies

World Lithium

Global demand for lithium metal is projected to rise 8.9 percent per year through 2019 to 49,350 metric tons. Gains will be driven by torrid advances in lithium-ion (Li-Ion) batteries as world demand for hybrid and electric vehicles, energy storage systems, and high-drain portable electronics continues to grow. This study analyzes the 32,200 metric ton world lithium industry, with forecasts for 2019 and 2024 by product and market for six world regions and 19 major countries. The study also evaluates company market share and profiles industry players.

#3331........... September 2015...............$6300

World Copper

Global demand for copper metal (refined copper and recycled scrap) is projected to advance 4.2 percent per year through 2019 to 36.0 million metric tons. Gains will be driven by applications such as building wire and plumbing and electrical grid wire and cable. The Asia/Pacific region will remain the largest and fastest growing market. This study analyzes the 29.3 million metric ton world copper industry, with forecasts for 2019 and 2024 by market, world region, and for 21 major countries. The study also evaluates company market share, and profiles industry participants.

#3274..................April 2015 ....$6300

World Industrial Silica Sand

Global demand for industrial silica sand is forecast to advance 5.5 percent annually to 291 million metric tons in 2018, with a value of $12.5 billion. The Asia/Pacific region will remain the largest market, while North America will grow the fastest. Glass will remain the leading outlet, while the hydraulic fracturing segment grows the fastest. This study analyzes the 223 million metric ton world silica sand industry, with forecasts for 2018 and 2023 by market, world region, and for 19 countries. The study also evaluates company market share and profiles industry participants.

#3237............ December 2014................$6200

World Salt

Global demand for salt is forecast to climb 1.5 percent annually to 325 million metric tons in 2018, valued at $13.4 billion. The dominant Asia/Pacific region will be the fastest growing market. Trends in the production of chlor-alkali chemicals will continue to have the most significant effect on regional salt demand. This study analyzes the 302 million metric ton world salt industry, with forecasts for 2018 and 2023 by market, production method, world region, and for 22 countries. The study also evaluates company market share and profiles industry competitors.

#3199................August 2014...................$6200

World Graphite (Natural, Synthetic & Carbon Fiber)

World demand for natural and synthetic graphite (including carbon fiber) is forecast to expand 5.8 percent annually to 4.2 million metric tons in 2018, valued at $30 billion. China will remain the largest and fastest growing market. Synthetic graphite will continue as the largest volume segment, while carbon fiber will grow the fastest. This study analyzes the 3.2 million metric ton world graphite industry, with forecasts for 2018 and 2023 by type, market, world region, and for 16 countries. The study also evaluates company market share and profiles industry players.

#3164................August 2014...................$6100

About The Freedonia Group

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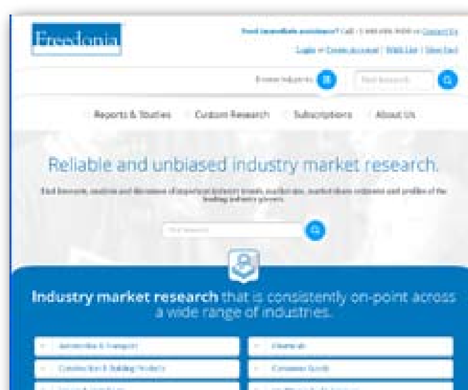

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