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**WOLFRAM INDUSTRIE**  
TUNGSTEN TECHNOLOGY GROUP

# TUNGSTIT®

WCu/Ag compounds designed  
for high quality and durability

# Many strengths for your applications

**TUNGSTIT®** combines the best properties of tungsten, copper, and silver – delivering precise, cost-efficient, and clean manufacturing processes. The high quality of materials and workmanship ensures reliable applications with extended service life, minimal wear, and reduced downtime.

1. High process quality – improved material properties
2. High burn-off resistance – longer service life
3. High manufacturing quality – maximum reproducibility
4. High edge stability – high resistance to deformation
5. Excellent homogeneity – clean application processes





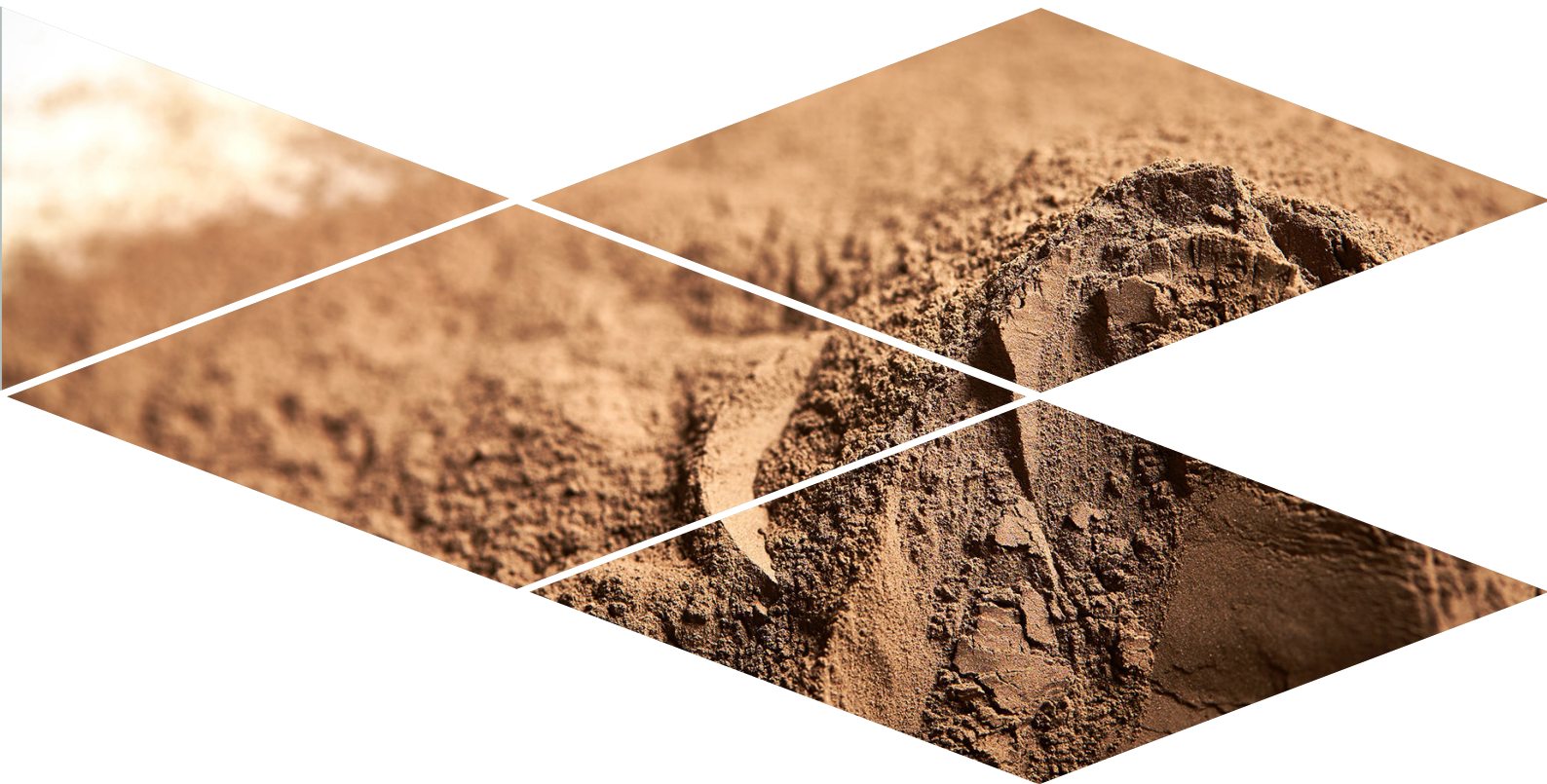
# Product description

**TUNGSTIT®** stands for tungsten–copper and tungsten–silver composites, manufactured using powder-metallurgical processes. These optimised material properties are based on decades of experience in materials development.

**TUNGSTIT®** is primarily used for electrodes in sinker EDM, resistance welding, and for electrical contact materials. Silver replaces copper in applications with high requirements for corrosion and oxidation resistance. In addition, silver offers higher electrical and thermal conductivity.

The combination of tungsten–copper (WCu) and tungsten–silver (WAg) combines high hardness, strength, and stiffness with excellent conductivity – making it ideal for processes involving high temperatures and mechanical loads.

**TUNGSTIT®** is produced by pressing and sintering tungsten and copper/silver powders. The remaining pores are subsequently infiltrated with copper or silver. Composition and properties can be tailored to suit specific applications.



# Advantages at a glance



## Improved material properties

High process quality starts with the selection of the tungsten powder. This results in an improved tensile strength of up to 800 MPa.



## Excellent homogeneity

Uniform resistance to compressive loads – for stable processes and long service life.



## Longer service life

High burn-off resistance ensures reduced wear – especially compared to copper or graphite electrodes.



## Clean processes

No dust exposure and no additional effort required for air filtration.



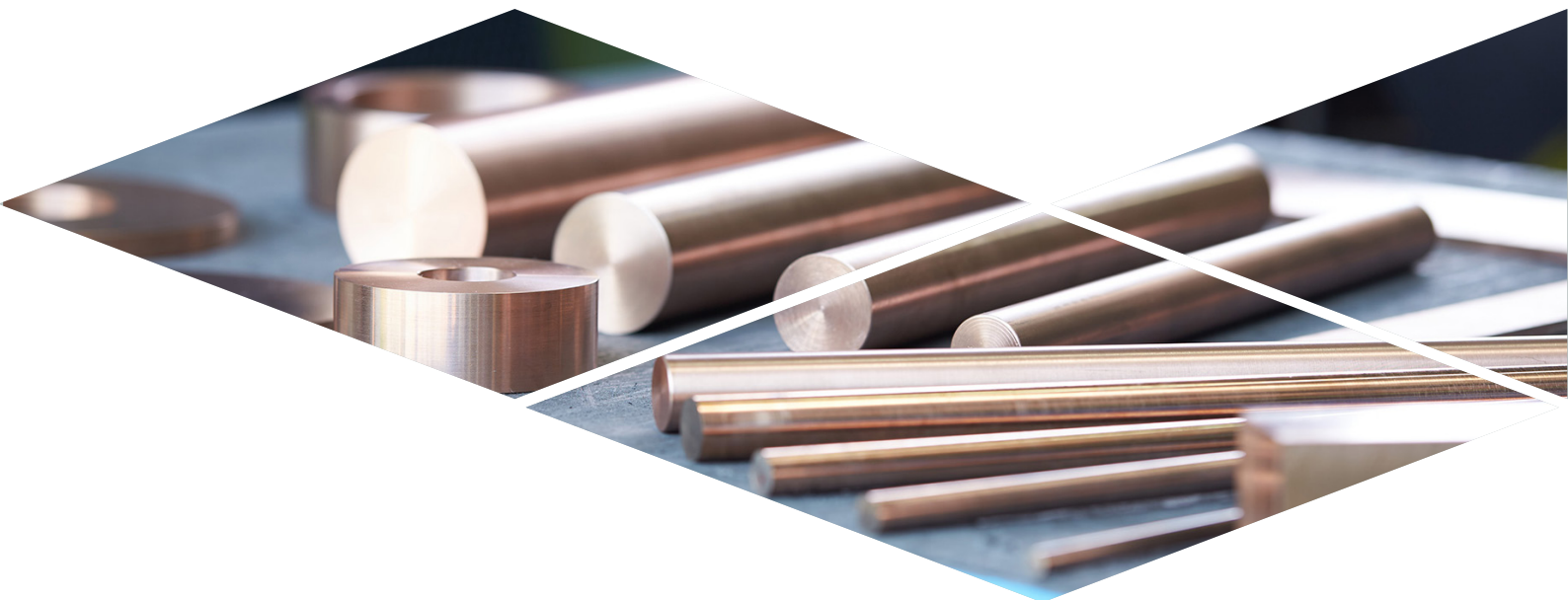
## Maximum reproducibility

High dimensional stability enables precise processes – without the need for reworking.



## High resistance to deformation and edge stability

Long service life even when machining hard materials.



# Applications at a glance

## Electrical discharge machining (EDM)

For machining hard materials such as cemented carbide or titanium, **TUNGSTIT®** offers ideal conditions – precise, low-wear, and efficient.

## Electrical contact materials

For high switching frequencies, **TUNGSTIT®** provides high burn-off resistance and stable contact quality – with delayed material depletion at the surface.

## Resistance welding

In the automotive as well as the aerospace industry, **TUNGSTIT®** ensures long-lasting welding electrodes with high reproducibility, thanks to its high strength and homogeneity.

# Delivery forms

## Composition

Standard grades: T50 to T90 (copper), and T50 to T85 (silver). Custom compositions available upon request.

## Formats

Rods, bars, blocks, discs, and plates – as well as special dimensions and electrodes manufactured to drawing.







## TUNGSTIT® – Quality and quality consulting

### **TUNGSTIT® – Increasing efficiency, reducing costs**

For every application, TUNGSTIT® offers the right solution – standardised or tailor-made. Let our experts advise you.

### **Quality from a single source**

From powder selection to the finished product – all manufacturing steps are carried out at our production sites in Nußdorf and Dachau.

We provide important information and guidelines for the safe handling of our electrodes on our website or contact our sales team at [info@wolfram-industrie.de](mailto:info@wolfram-industrie.de).

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