Plansee Composite Materials.

Plansee Composite Materials is our competence center for tungsten heavy metals as well as metallic and ceramic composite materials. The site manufactures a number of exceptional products from our tungsten heavy metal alloys Densimet® and Inermet®, tungsten-copper and many other metallic and ceramic composites, for example based on titanium and aluminum.

Lechbruck, Germany, is where we make products from tungsten heavy metal alloys and a wide range of materials for producing hard coatings.
Top quality from a single supplier.

We handle every stage in the manufacture and processing of our composite materials in-house. From the raw materials through to the finished product: including research and development. To do this, we call on our whole range of technological skills and guarantee that you benefit from the very best quality.

Our production route.

At a very early stage, during the careful mixing of our special metal powders, we lay the foundations for our unbeatable products. Depending on the product requirements, we compact the powder to produce formed parts using a variety of processes such as die pressing with mechanical or hydraulic forces. Using cold isostatic pressing techniques, we produce green compacts for semi-finished blanks. Our hot pressing processes enable us to produce dense, binder-free semi-finished products in a single-stage manufacturing procedure. These are then subjected to a sintering or liquid-phase sintering process to achieve the optimum product density. Some of the composites produced at Plansee Composite Materials are the result of special processes such as infiltration or back-casting.

Full Service.

And wherever customer service is concerned, Plansee Composite Materials is once again the first port of call: We bond our sputtering targets to backplates to make them easier to handle. Thanks to our many years of experience, high-precision machining technologies such as the lathing, milling, drilling, grinding, wire or water jet cutting of heavy metals and other tungsten alloys are no problem for us.
Our experts...

We have developed a wide range of tungsten heavy metals as well as metallic and ceramic composite materials with exceptional combinations of properties and, in particular, we have optimized the following characteristics:

- Density
- Mechanical strength
- Shielding against X-ray and gamma radiation
- Thermal conductivity and thermal expansion
- Electrical conductivity
- Corrosion resistance
- Temperature resistance

Our tungsten heavy metal alloys Densimet® and Inermet® have a particularly high density (17.00 to 18.8 g/cm³) and reliably protect against X-ray and gamma radiation. The addition of nickel and iron or nickel and copper makes the alloys significantly easier to work than pure metal. Densimet® is used, among other things, collimators in radiation therapy equipment, while, due to its non-magnetic behaviour, our Inermet® is used for shielding panels and in balancing weights. Tungsten copper, for example, combines the high melting point of tungsten with the high electrical and thermal conductivity of copper and is used, among other things, in switch contacts in the power engineering sector.

... for very special products

Working in close collaboration with our customers, we turn ideas in the fields of medical technology, hard material coatings, the foundry industry and the automotive sector into realities.
An example? When a tungsten heavy metal giant weighing two tonnes has to be machined with the precision of a Swiss watchmaker then that is just the sort of challenge that Plansee Composite Materials relishes. The result: A collimator helmet for a particularly benign method of treating tumours. More than 576 high-precision drill holes lead to exactly the same focal point. In this way, the radiation falls directly on the diseased area and the healthy tissue is securely protected. 50 000 patients are treated every year using this particularly unaggressive method and are speeded towards a faster recovery. With its enthusiasm and commitment, modern production processes and great experience, Plansee Composite Materials develops other, very special products:

- **Multileaf collimators** for radiotherapy
- **Shieldings** for medical technology
- **Stationary anodes** for X-ray tubes
- **Balancing weights** for example for the automotive industry and the aviation sector
- **Plasma nozzles and electrodes** for coating technology
- **Targets** for hard material coatings
- **Mould inserts** for aluminium casting
- **Heat spreaders** for the electronics industry
- **Electrodes** made of porous tungsten for the lighting industry

**Do you also have a challenge for us?**

You can rely on the engineering expertise and innovative approach of Plansee Composite Materials. Working in close cooperation with our customers, our production site develops products that meet the very highest requirements. Our many years of experience and state-of-the-art production methods are among our invaluable assets.

**Training & Careers.**

So you really want to make a difference? Then do it! At Plansee Composite Materials. We are big enough to be in powder metallurgy's top division and small enough for every individual employee to make a real contribution. For those entering the professional world for the first time, Plansee Composite Materials also offers training positions for machinists. Take a look at our current job offers.
Plansee Composite Materials is the acknowledged expert for sputtering targets for hard material coatings. Together with the production site Plansee Tungsten Alloys in France, this site forms our competence center for tungsten heavy alloys.

Contact.

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