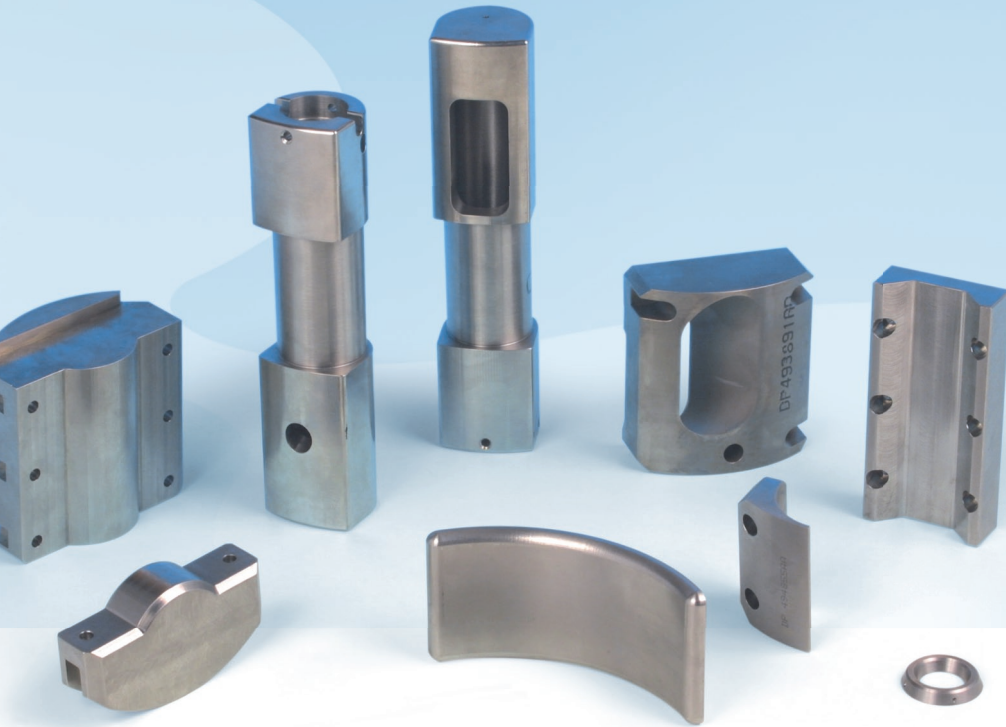


High Performance Materials for
Shielding and Aerospace Applications

DENSIMET®-INERMET®



A Step ahead in Technology.

PLANSEE 

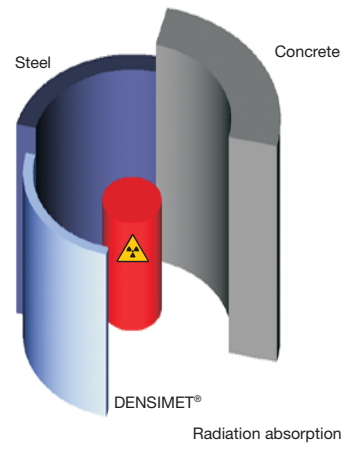
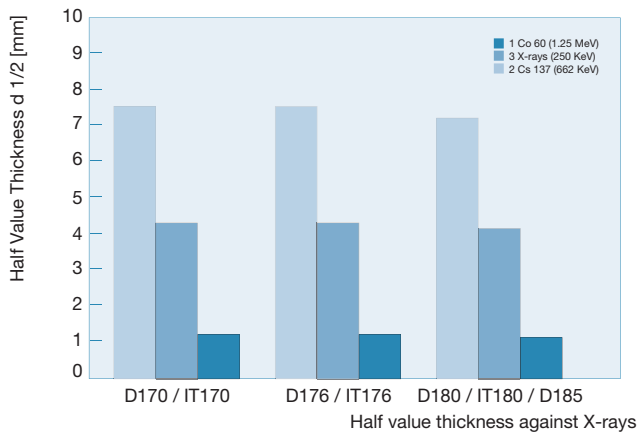
PLANSEE is the world's leading manufacturer of powder metallurgically processed refractory and special metals. DENSIMET® and INERMET® tungsten alloys are distinguished by their particularly high density. Combined with their ability to absorb radiation as well as their outstanding mechanical properties and machinability, they are the ideal materials for shieldings and aerospace applications.

Advantages for aeronautical applications:

- The non magnetic characteristic of INERMET® (0% Fe content) avoids magnetic field disturbance on creation. This is particularly important for rotating parts used in avionics.
- DENSIMET® shows high mechanical resistance and is the material of choice if no pre-requisites for non magnetic material are given.
- The high density of DENSIMET® and INERMET® allows a significant reduction of the volume necessary for balancing weights.
- A proven capacity to handle all quality aspects linked to the supply of flying safety parts.

Advantages for shielding applications:

- With a density in the range of 17 up to 19g/cm³ and a high X-ray and gamma ray absorption capacity, DENSIMET® is the ideal material for shielding components.
- DENSIMET® and INERMET® reduce the volume of shielding material needed thanks to the high density of tungsten and show exceptional stability and freedom from distortion.
- The good machinability of DENSIMET® and INERMET® allows the production of complex geometries according to customer drawings.



Material properties

| Material | Abbreviation | Chemical Composition (%) | | Density |
|----------------------|--------------|--------------------------|------------|---------|
| | | W | Balance | |
| Weakly ferromagnetic | | | | |
| DENSIMET® 170 | D170 | 90 | Ni, Fe | 17 |
| DENSIMET® 176 / W | D176 | 93 | Ni, Fe | 17.6 |
| DENSIMET® 180 | D180 | 95 | Ni, Fe | 18 |
| DENSIMET® 185 | D185 | 97 | Ni, Fe | 18.5 |
| DENSIMET® 188 | D188 | 98.5 | Ni, Fe | 18.8 |
| DENSIMET® D2M | D2M | 90 | Ni, Mo, Fe | 17.2 |
| Paramagnetic | | | | |
| INERMET® 170 | IT170 | 90 | Ni, Cu | 17 |
| INERMET® 176 | IT176 | 92.5 | Ni, Cu | 17.6 |
| INERMET® 180 | IT180 | 95 | Ni, Cu | 18 |

