Let the sun shine! Sputtering targets for the solar industry.

Tungsten and molybdenum have been successfully used as thin films for TFT displays for more than twenty years. We supply sputtering targets to the solar industry for use in the following technologies:

- CIGS (copper, indium, gallium, sulphur/selenium)
- CdTe (cadmium telluride)
- CSP (Concentrated Solar Power)

When used as coating components, our materials help determine the performance of thin-film photovoltaic and solar thermal applications. They are highly adhesive and resistant against oxidation and corrosion. Sputtered films made of our materials are not only highly reflective and extremely conductive but can also significantly increase the efficiency of solar cells.
Long service life due to optimized film adherence
Highly efficient thanks to the excellent electrical conductivity resulting from the use of extremely pure materials
High sputtering speeds due to maximized material densities
Uniform sputtering rates thanks to the optimized microstructure
Stable sputtering processes due to the high level of resistance against oxidation and corrosion

You want more out of it? Clear as daylight.

More speed: Our monolithic targets can be used without backing tubes. They can be sputtered at power densities of up to 30 kW/m. This results in higher sputtering speeds and optimized film properties.

Improved yield: The intelligent target geometries of our u-shaped and dogbone targets, for example, permit material utilization levels of even more than 75 % and thus longer target lifetimes. The principle is simple: We apply more coating material to the areas that are subject to the highest load levels. This allows us to overcome the disadvantages of conventional designs – uneven sputtering and high levels of material loss.

More energy: Thanks to our new material compositions, we are able to increase the efficiency of the absorber layer. So every ray of sun gives you more!

Maximized material utilization: Rotary molybdenum targets.

You want to make the most of what you've got? With our rotary targets, you can use more than 75% of the target material and enjoy a longer period of utilization. We produce rotary targets of up to four meters in length on reusable steel or titanium backing tube.

You can also test our monolithic rotary targets which do not require a backing tube. These are less sensitive to temperature and can be sputtered at extremely high power densities of up to 30 kW/m.
Monolithic targets now with ID-coating.

You want to save costs? Then we have something new for you: A polymer-based inner diameter coating for monolithic sputtering targets. Find out more about it.

Quality matters. All along the way.

We are the only manufacturer of sputtering targets to perform every stage of the production process ourselves. From the raw material through to the finished product: including the development of new materials and the optimization of our coating methods and coatings.

Sintering is the cornerstone of our powder metallurgical production process. This is the method we use to manufacture compact metallic components from porous powder blanks. With the world's largest hot rolling mill for refractory metals, we produce planar targets of maximum density. We use special forming processes to manufacture our rotary targets.

Destination sun. Come aboard!

Let's join forces to move solar technology forward. We work together with all the leading system manufacturers and numerous research institutes. The result is innovative materials and coatings that we sputter and specify under real-life conditions.
We will coat test substrates using the RF, DC or pulsed DC sputtering methods in line with your specifications. Using a high-resolution scanning electron microscope and other analytical equipment, we can identify the microstructure, electrical conductivity, adhesion, film thickness and film stresses. We check the crystallographic phase, optical properties, chemical composition and morphology of the deposited films.

We are happy to send you a vacuum-packed film sample for further examination.