Tungsten filaments.

Whether for simple incandescent lamps, general-purpose or special halogen lamps: all of them need incandescent filaments made of dimensionally stable tungsten wire. The requirements placed on the material in terms of durability, light yield, reliability and mechanical stability are enormous. Our solution is known as tungsten NS (for “non sag”). Our tungsten wire deserves its name due to its high creep resistance.

Our tungsten NS (W NS) wire is doped with aluminum and potassium silicate. By adding 60 to 65 ppm potassium and using special thermomechanical processes, we achieve an elongated, interlocking stacked microstructure. The recrystallization temperature of a 0.24 mm thick W NS wire starts at 2 100 °C and reaches 100 % at 2 300 °C. The result: Our wire possesses greater dimensional stability than more highly doped tungsten wire and also offers high ductility and high-temperature creep resistance.
We guarantee a purity of over 99.99 %

We guarantee a purity of over 99.99 % - the perfect prerequisite for reproducible, well-controlled processes. In addition, the quality of the material is defined by the "split level". This is determined by the frequency, shape, length and depth of any radial cracks and is identified using eddy current measuring techniques.

We supply our W NS fine wires in diameters of 15 µm to 300 µm with a diametrical tolerance of 1 %, with a black or cleaned and electropolished surface, straightened or annealed. We manufacture our wires to a very low diametrical tolerance, and guarantee uniform mechanical properties and a low "split level". The drawing operations and heat treatment have been designed to achieve outstanding high-temperature creep resistance and reduce the tendency to fissuring and breakage.

We supply our redraw wire with diameters of 800 to 1 300 µm with a graphite-coated surface (black) on self-supporting rings. We can adapt the quality of our redraw wire to meet the precise requirements of your drawing process and your sector of application.
Bearing the load. Mo-ILQ® core wires.

Our Mo-ILQ® wire is used as the core wire in the production of incandescent filaments. Wound in fine tungsten wire, this supports and protects the tungsten filament during the stress relief annealing and subsequent processing steps.

During the production of Mo-ILQ®, we dope pure molybdenum with 300 ppm lanthanum oxide. This increases the recrystallization temperature of the core wire. Even when recrystallized, the homogeneous, elongated microstructure ensures that Mo-ILQ® core wires remain ductile. Following the heat treatment stage used in the production of incandescent filaments, our Mo-ILQ® wire is significantly more ductile than pure molybdenum wire.

We adhere to very strict tolerances when doping our molybdenum. We ensure that the lanthanum oxide is particularly uniformly distributed. The benefit to you: Excellent drawing properties.

The advantages of Mo-ILQ®:

- Remains ductile even after recrystallization
- Homogeneous mechanical properties
- Outstanding drawing properties

We can supply you with ready-to-use core wire in diameters of 20 to 50 µm with a black or electropolished surface on standard coils.

We supply Mo-ILQ® redraw wire in diameters of 0.3 to 3.2 mm with a graphite-coated surface on standard coils or on self-supporting wire rings.

Do you have any special requirements? That's not a problem. Just contact us!

A single source for all your needs.

We handle every stage in the manufacture of our products in-house. From the raw materials through to the finished product: including the development of new materials. In this way, we can guarantee that you benefit from the very best quality.