ML and MoILQ® support wire

Our dimensionally stable wire sections and pins made from molybdenum-lanthanum oxide (ML) and molybdenum ILQ (Incandescent Lamp Quality) are used to support the filament in halogen lamps and incandescent lamps. They are also used to conduct electricity. Our materials offer high dimensional stability and weldability.
It's all about the mix.

By using different alloy materials and optimized production processes, we are able to improve the properties of pure molybdenum. To make sure that our electrical support wires benefit from particularly high ductility and dimensional stability, we dope our molybdenum with La$_2$O$_3$. The stabilized microstructure and modified recrystallization behavior prevent the premature embrittlement and fracture of our material.

A high level of resistance to oxidation is important at application temperatures of over 300 °C: The oxidation rate of ML is considerably lower than that of pure molybdenum.

ML has a particularly fine-grained fiber structure. After recrystallization, the material forms a stacked microstructure, i.e. a structure consisting of elongated, interlocked grains. As a result, the recrystallization temperature is significantly higher than in the case of pure molybdenum and even higher than that of AKS-doped molybdenum (AKS = aluminium-potassium silicate). Our ML wires and pins remain ductile at room temperature and at very high operating temperatures.

With our MoILQ®, we have developed a material specifically designed for use in incandescent lamps. At 300 ppm, the lanthanum content in MoILQ® is approximately one tenth of the dopant content in ML. In this way, we guarantee optimum workability while still retaining all the benefits of lanthanum oxide: a high recrystallization temperature and high ductility.

In fully automated production processes in particular, the yield strength of every coil of wire must be consistently high. Only then can a uniform springback be guaranteed. You can rely on our wire. With our low manufacturing tolerances, we help you achieve trouble-free production without downtimes.

The advantages of MoILQ®:

- Remains ductile even after recrystallization
- Constant springback properties
- Outstanding drawing properties
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.

You want it. We'll supply it.

We supply 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. We supply support wires with an electropolished surface in diameters of 0.3 to 3.2 mm on standard coils. Do you have any special requirements? That's not a problem. Just contact us!