

THE WORLD OF PRECIOUS METALS



Certified according to the standards:

- ISO 9001 (Quality)
- ISO 14001 (Environmental)
- ISO 45001 (Safety & healthcare management)
- ISO 50001 (Energy management)
- Responsible Care (Health, safety and environment)
- RJC Code of Practices (Ethical, social and environmentally friendly business practices)

 Österreichische Gold- und Silber-Scheideanstalt Ges.m.b.H.

Liesinger-Flur-Gasse 4  
1230 Vienna  
t +43 1 86646 -4201 to -4211  
platin@oegussa.at



[www.oegussa.at](http://www.oegussa.at)

PART OF  umicore



# THERMOWIRE

## and Protective Tubes of Platinum/Rhodium

# Thermowire and Protective Tubes made of Platinum/Rhodium

Type R, S and B thermocouple wires are available in the required length or prefabricated in lengths of 25 and 50 meters per spool. We also offer ready-to-install thermocouples that are connected with a fusible bead. Standard diameters of 0.35 and 0.50 mm are available promptly from stock. Special diameters are manufactured to order at short notice according to customer requirements. Each delivery includes a quality certificate that guarantees the thermoelectric voltage in accordance with EN 60584 -1 2014/15 and ASTM E 230.

Protective tubes made of FKS (fine-grain stabilized) platinum are the cost-effective alternative to the common platinum-rhodium alloys. Thanks to precise manufacturing techniques, it is possible to reduce the wall thicknesses down to 0.10 mm depending on the diameter and length. This saves the use of valuable precious metals and resources.

Damaged protective tubes and deviating thermocouple wires outside the measurement tolerance are recycled at the Vienna production site. New precious metal alloys for a wide range of applications and products are created from the recovered materials in their purest form, examples of which are listed in the product range.

Material   Diameter	grs/m at 20°C	Working Temperature Range		ohm/m
		Continuous	Short-Term	
<b>Thermowire Pt10%Rh, Type S</b>				
0.35 mm	1.92	1300°C	1600°C	2.01
0.50 mm	3.92	1300°C	1600°C	0.98
<b>Thermowire Pt13%Rh, Type R</b>				
0.35 mm	1.88	1300°C	1600°C	2.05
0.50 mm	3.84	1300°C	1600°C	1.01
<b>Thermowire Pt für Type R + S</b>				
0.35 mm	2.06	1300°C	1600°C	1.11
0.50 mm	4.20	1300°C	1600°C	0.54
<b>Thermowire Pt30%Rh, Type B</b>				
0.35 mm	1.70	1500°C	1700°C	2.19
0.50 mm	3.47	1500°C	1700°C	1.07
<b>Thermowire Pt6%Rh, Type B</b>				
0.35 mm	1.98	1500°C	1700°C	1.83
0.50 mm	4.04	1500°C	1700°C	0.94

Thermoelectric voltage in accordance with EN 60584 -1 2014/15 and ASTM E 230

TYPE	CLASS 1	CLASS 2	CLASS 3
<b>Type R and S</b>			
Temperature range	0°C - 1600°C	0°C - 1600°C	-
Limiting deviation	± 1.0°C or ± [1.0+0.003 · (t-1100)]°C	± 1.5°C or ± 0.0025 · t	-
<b>Type B</b>			
Temperature range	-	600°C - 1700°C	600°C - 1700°C
Limiting deviation	-	± 1.5°C or ± 0.0025 · t	± 4.0°C or ± 0.005 · t

With around 160 employees, Ögussa is Austria's market leader in precious metal processing and recycling. As part of the globally active Umicore Group, we focus on application areas in which our combined materials expertise in metal chemistry and metallurgy makes the decisive difference for our customers. The primary goal of creating sustainable value is based on the endeavor to develop, produce and recycle materials in such a way that they live up to our claim: "Materials for a better life".



## Product Range · Variety in Detail

**Laboratory equipment** made of platinum for all common XRF fusion devices. Electrodes, aperture plates, bushings and components for the glass industry  
**Sheath wires** in the combinations PtNi, CuAg, CuAu for sensor and medical technology  
**Bar material** for automatic lathes  
**Wires and fine wires** with diameters up to 25µm  
**Wire pins** in various diameters and lengths  
**Web- and knitting nets** for catalysts made of silver and platinum and their alloys  
**Strips, sheets and foils** up to 25µm  
**Stamped and turned parts** made from platinum, palladium, gold and silver in different alloy combinations or made of fine metals of the highest purity  
**PVD targets** made from high-purity platinum, gold and silver >999.99  
**Electroplating** decorative and technical coatings in gold, silver and rhodium  
**Precious metal recycling** for Au, Ag, Pt, Pd, Ir and Rh  
**Precious metal electrolytes**  
**Gold and silver bars**  
**Precious metal trading**

