

1. Standards

Heavy alloy W Ni Cu 96/3/1
(no standard available)

3. Composition

⁽¹⁾ Combustion analysis

⁽²⁾ ICP analysis

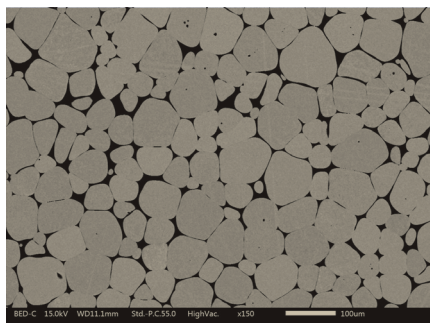
% Ni ⁽²⁾	2,5 - 3,5
% Cu ⁽²⁾	0,5 - 1,5
% O ⁽¹⁾	<0,1
% P ⁽¹⁾	<0,05
% W	Bal.

2. Description and use

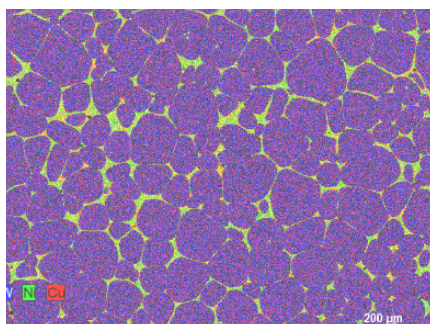
Heavy alloy made from pure tungsten powder and a metallic binder composed of 3%wt. nickel and 1%wt. copper. This material without iron or cobalt is used where high density and no magnetic properties are needed such as watchmaking or medical devices.

4. Microstructure

Grain size index G=6 (~ 50 µm)



SEM micrograph



SEM micrograph

5. Physical properties

Minimum density : **18,05**

6. Mechanical properties

Surface hardness : 400 Hv₁
Roughness : 1 < Ra < 2 µm