

SPECIFICATIONS

European standard:

EN : X2NiCoMo18-8-5

AFNOR : X2NiCoMo18-8-5

W.Nr : 1.6379 / ~1.2706

DIN : X2NiCoMo18-8-5

ASTM : A 579

COMPOSITION

Carbon.....	≤ 0.03
Nickel.....	18.00
Cobalt.....	8.00
Molybdenum.....	5.00
Titanium.....	0.50

TYPICAL MECHANICAL PROPERTIES

- The softening treatment involves heating to 825°C followed by air cooling.
 - Brinell Hardness: 290

HEAT TREATMENT REFERENCE

- After ageing at 480°C, the parts have the following properties:
 - UTS approximately: 1800 N/mm²
 - 0.2 % Yield strength: 1650 N/mm²
 - Elongation (5d): 7 %
 - Vickers hardness approximately: 540

APPLICATIONS

- Extrusion dies and cold forming tools
- Plastic pressing moulds
- Die-casting dies

CHARACTERISTICS

- Good erosion resistance.
- Good resistance to deformation during operation
- Excellent polishing qualities.
- Good weldability.

HEAT TREATMENT

- After softening, the mechanical properties are obtained by the following ageing treatment:
 - Heat to 480 °C.
 - Hold the 480°C temperature for 4 hours.

For thick parts, calculate the time required to reach an even temperature throughout the mass.

A slight shrinkage occurs during the ageing process (around 0.5 /1000 for one treatment).

When the operating temperature of the parts is above 450°C, ageing at 540°C is recommended.

PHYSICAL PROPERTIES

- Density: 8.0
- Mean coefficient of expansion in m/m.°C:
 - between 20°C and 200°C: 10.6×10^{-6}
 - between 20°C and 400°C: 11.1×10^{-6}

FORGING

- 1150/815°C

To obtain a fine and homogeneous grain size, the last forging operation must take place between 950°C and 815°C with adequate working. After forging, air cool.

Contact:

www.aubertduval.com

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