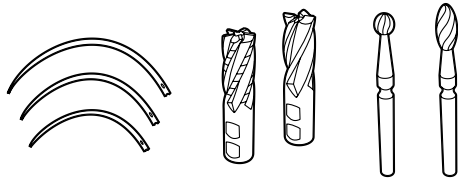


Ergste® 1.4568GA Data Sheet

Medical Alloys



Zapp is certified to ISO 9001



Ergste® 1.4568GA

Ergste® 1.4568GA is a chemical resistant steel with good deformation properties, high tensile strength and finest corrosion resistance. On top of that, the heat treated materials is characterized by excellent long-term properties.

Typical fields of application

- Clips, clamps
- Spring parts for medical technology (Micro springs, armor wire)

Weldability

Ergste® 1.4568GA is not weldable due to its high aluminium content.

Polishability

Ergste® 1.4568GA is polishable.

Magnetism

Ergste® 1.4568GA shows low magnetism in the annealed condition which increases with cold forming.

Hot working

Temperature: 1150 – 900 °C

Cooling: Air

Machining

Machining in the solution annealed condition needs to be conducted with tools made of high quality tool alloys or tungsten carbide alloys due to the tendency of the material to work hardening and the relatively low thermal conductivity.

Cold working

In comparison to other austenitic stainless steels, like Ergste® 1.4310, cold forming is better with Ergste® 1.4568GA.

Corresponding standards

- DIN EN 10088-3 (X7CrNiAl17-7)
- ASTM F899 AISI 631 (UNS S17700)

Typical chemical composition

C	Si	Mn	P	S	Cr	Ni	Al
<0.08	<0.70	<1.00	<0.04	<0.015	16.00 – 18.00	6.50 – 7.80	0.70 – 1.50

Mechanical properties (solution annealed)

Tensile strength Rm	[MPa]	700 – 850
Yield strength Rp0,2	[MPa]	270 – 350
Elongation	[%]	> 35

Physical properties

Modulus of Elasticity E at 20 °C	[GPa]	205
Specific Gravity ρ	[kg/dm³]	7.9
Thermal Conductivity λ at 20 °C	[W/m*K]	15.0
Coefficient of Thermal Expansion α	[10 ⁻⁶ *K ⁻¹]	
20 - 100 °C		15.5
20 - 400 °C		17.5
Specific Heat c at 20 °C	[J/kg °C]	490
Electric Resistivity ρ at 20 °C	[Ω*mm²/m]	0.8

Heat treatment

Solution annealing

Temperature: 1060 – 1080 °C

Cooling: water, rapid gas cooling

Zapp Precision Metals GmbH

MEDICAL ALLOYS

Letmather Straße 69

58239 Schwerte

P.O. Box 17 20

58212 Schwerte

Phone +49 2304 79-540

Fax +49 2304 79-482

medicalalloys@zapp.com

www.zapp.com

Further information regarding our products and locations are available in our image brochure and under www.zapp.com

The illustrations, drawings, dimensional and weight data and other information included in this data sheet are intended only for the purposes of describing our products and represent non-binding average values. They do not constitute quality data, nor can they be used as the basis for any guarantee of quality or durability. The applications presented serve only as illustrations and can be construed neither as quality data nor as a guarantee in relation to the suitability of the material. This cannot substitute for comprehensive consultation on the selection of our products and on their use in a specific application. The brochure is not subject to change control.

Last revision: December 2019