

Zapp® 1.4105 IU Automotive Datasheet & Automation Technology | Precision Wire



Zapp is certified to ISO 9001 | IATF 16949



Categorization

- Ferritic, corrosion resistant steel
- DIN EN 10088-3
- AISI 430F

Typical Applications

Zapp® 1.4105 IU is mainly used for turned parts in volume production with moderate requirements in corrosion resistance. Due to its ferritic structure it can also be used in some solenoid applications

Processing and Usage Properties

Zapp® 1.4105 IU (similar to X6CrMoS17) is a stainless free cutting steel. It is designed for the volume production of precision turned parts. It is resistant in water, steam and other less aggressive media. If welding is necessary, plasma- or laser welding should be preferred. The steel is suitable for cold forming operations within certain limits.

For improved properties in selective cases we recommend the following Zapp® grades:

Cold Heading

Zapp® 1.4003 IA
Zapp® 1.4016 IM
Zapp® 1.4511 IA

Corrosion Resistance

Zapp® 1.4113 IM

Machinability

Zapp® 1.4005 IA

Magnetic Properties

Zapp® 1.4005 IA
Zapp® 1.4105 IL

Weldability

Zapp® 1.4511 IA

Typical Analysis*

C	Si	Mn	S	Cr	Mo
≤ 0.05	≤ 1.0	≤ 1.25	0.2-0.35	16.0-18.0	0.20-0.60

* Weight percentage/approximate value

Mechanical and Physical Properties

Tensile strength (soft annealed)	450 - 650 [MPa]
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Magnetic Properties of Round Bars

Coercitive strength*	Hc < 480 [A/m]*
Maximum relative permeability	n. A.
Saturation polarization*	Js > 1.5 [T]*

*These properties must be agreed upon on request.

Delivery Forms*

Round bars	Annealed, ground
Profiles	Annealed, straightened

* Crack tested according to DIN EN 10088-3, Table 1 Surface class 1-3, US-Testing: KSR (FBH) 0.7 mm or better

PRECISION WIRE

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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 datasheet is not subject to change control.

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