TECHNICAL DATASHEET

440A – 1.4109 –X65CrMo17
FT 00X – Version 0

Martensitic stainless steel hardenable.
Erosion resistance is one of its main characteristics.
Because it is high in carbon, 440A hardness can reach 56HRC according to the heat treatment.
The corrosion resistance will depend on the quality of polishing.

APPLICATIONS	ADVANTAGES
Orthopaedics instrumentation and food industry	Good balance between hardness and corrosion resistance
STANDARDS	**SHAPES**
WERKSTOFF NR. 1.4109 ASTM F899 NF S94-090	**BAR** Diameter 4-220 mm Length 3000-3500 mm Tolerance Ø≤20 mm: h9 – Ø>20 mm: h11

➢ CHEMICAL COMPOSITION

%	C	Mn	P	S	Si	Cr	Ni	Fe
min	0.60	Max	Max	Max	Max	16.0	Max	Balance
max	0.75	1.0	0.040	0.030	1.00	18.0	1.00	

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➢ MECHANICAL PROPERTIES

Condition				Hardness
Annealed state	Heated to 850°C followed by slow cooling			230 HB
After quench				≥ 52 HRc

➢ HEAT TREATMENT

Annealed	843-870°C for 2-4 hours then very slow cooling
Quenching	Quenching in oil or air : 1000-1030°C
Tempering	

➢ PHYSICAL PROPERTIES

Density (g/cm³)	7.7
Typical hardness (HRc)	52
Modulus of elasticity at 20°C (N/mm²)	215 x10³
Thermal conductivity at 20°C (W/m °C)	15,5
Specific heat (J/Kg °C)	460
Magnetic	YES

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