



TECHNICAL DATASHEET

**17-4 PH - AISI 630 – 1.4542 – X5CrNiCuNb 16-4-4
FT 019 – Version 0**

Martensitic stainless steel, precipitation hardened and remelted by ESR. Its hardness after structural hardening can reach 44 HRc. It also has good corrosion resistance and high resilience.

APPLICATIONS	ADVANTAGES
Surgical instruments Aeronautic, chemical, pharmaceutical and food industries	Good corrosion resistance Resilience
STANDARDS	SHAPES
WERKSTOFF NR. 1.4542 ASTM F899 ASTM A564 AMS 5643 EN 10088-3 NFS 94-090	<p>BAR</p> <p>Diameter 5.0-300.0 mm</p> <p>Length 3000-3500 mm</p> <p>Tolerance h9 \varnothing <30 h11 \varnothing \geq30.0</p> <hr/> <p>FLAT</p> <p>Thickness 6.0-50.0 mm</p> <p>Width 30.0-10.0 mm</p> <p>Length 3000-4000 mm</p>

➤ CHEMICAL COMPOSITION

%	C	P	Si	Ni	Cu	Nb/Ta	Mn	S	Cr	Fe
min				3.00	3.00	0.15			15.00	residue
max	0.07	0.040	1.0	5.00	5.00	0.45	1.0	0.030	17.50	



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➤ HEAT TREATMENT

Condition		Hardness
Solution heat treatment	Heated to 1030°C ± 14°C, rapid cooling.	352 HB
Ageing	4 hours at 482°C	44 HRc

➤ MECHANICAL PROPERTIES

Condition	Rm Tensile strength (MPa)	Rp0.2 Yield strength (MPa)	Elongation (%)	Ra (%)	Hardness HRc
Solution heat treated					36
H900 - 482°C	1365	1262	15	52	44
H1025 - 552°C	1158	1117	16	58	38
H1075 - 579°C	1131	1020	17	59	36
H1050 - 566°C	993	869	20	60	33

➤ PHYSICAL PROPERTIES

Density (g/cm ³)	7.8
Typical hardness (HRc)	33-44
Modulus of elasticity at 20°C (N/mm ²)	197 x10 ³
Thermal conductivity at 20°C (W/m °C)	17
Electrical resistance µohm-mm	769 (H900)
Magnetic	YES

The information and technical data contained in this sheet are for information purposes only. Only the information written on our material analysis certificates will be official.