



# TECHNICAL DATASHEET

## 440C – 1.4125 – X105CrMo17 FT – Version 0

Martensitic stainless steel with 17% chromium.  
Erosion resistance is one of its main characteristics.  
Because it is high in carbon, 440C has hardness > 56HRC according to the heat treatment.  
The corrosion resistance will depend on the quality of polishing and the passivation.

APPLICATIONS	ADVANTAGES
Surgical and dental Instruments	Good balance between hardness and corrosion resistance
STANDARDS	SHAPES
WERKSTOFF NR. 1.4125 EN 10088-3 NF S94-090	<b>BAR</b>  Diameter 4-220 mm  Length 3000-3500 mm  Tolerance $\varnothing \leq 20$ mm: h9 – $\varnothing > 20$ mm: h11

### ➤ CHEMICAL COMPOSITION

%	C	Mn	Mo	P	S	Si	Cr	Ni	Fe
min	0.95						16.0		Balance
max	1.20	1.0	0.75	0.040	0.030	1.00	18.0	1.00	



# TECHNICAL DATASHEET

## 440C – 1.4125 –X105CrMo17 FT – Version 0

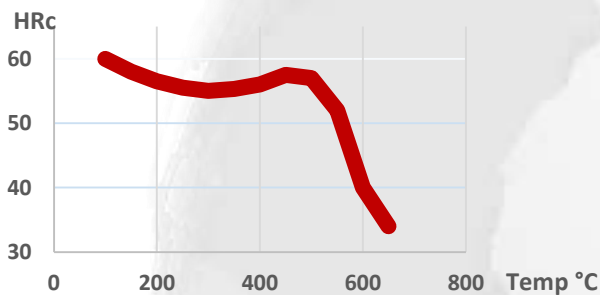
### ➤ MECHANICAL PROPERTIES

Condition		Hardness
Annealed state	Heated to 870°C followed by slow cooling	230 HB
After quench		≥ 59 HRc

### ➤ HEAT TREATMENT

Annealed	730-770°C for 2-4 hours then very slow cooling
Quenching	Quenching in oil or oil : 1010-1070°C
Tempering	100-400°C. Tempered under subzero in a slice of -80°C is better to avoid austenites.

**Tempering diagram**



### ➤ PHYSICAL PROPERTIES

Density (g/cm <sup>3</sup> )	7.7
Typical hardness (HRc)	59
Modulus of elasticity at 20°C (N/mm <sup>2</sup> )	200 x10 <sup>3</sup>
Thermal conductivity at 20°C (W/m °C)	25
Specific heat (J/Kg °C)	460
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.