# TECHNICAL DATASHEET

## 420A – 1.4021 –X20Cr13
## FT 00X – Indice 0

Martensitic stainless steel hardenable with 12% of chromium.
Due to low carbon content, 420A has a better corrosion resistance.

| APPLICATIONS | ADVANTAGES |
|---|---|
| Manufacture of dental and surgical instruments. | Good balance between hardness and corrosion resistance |
| **STANDARDS** | **SHAPES** |
| WERKSTOFF NR. 1.4021<br>EN 10088-3<br>ASTM F899<br>NF S94-090 | **BAR**<br>Diameter<br>4-220 mm<br>Length<br>3000-3500 mm<br>Tolerance<br>Ø≤20 mm: h9 – Ø>20 mm: h11 |

## ➢ CHEMICAL COMPOSITION

| % | C | Mn | P | S | Si | Cr | Ni | Fe |
|---|---|---|---|---|---|---|---|---|
| min | 0.16 | Max | Max | Max | Max | 12 | Max | Balance |
| max | 0.25 | 1.0 | 0.040 | 0.030 | 1.00 | 14 | 1.00 | |

# TECHNICAL DATASHEET

## 420A – 1.4021 –X20Cr13
## FT 00X – Indice 0

### ➢ MECHANICAL PROPERTIES

| Condition | | | | Hardness |
|---|---|---|---|---|
| Annealed state | Quenching at 850°C followed by a slow cooling | | | 180 HB |
| After quench | | | | ≥ 47 HRc |

### ➢ HEAT TREATMENT

| | |
|---|---|
| Annealed | 730-880°C for 2-4 hours then very slow cooling |
| Quenching | Quenching in oil, air or gas: 980-1030°C |
| Tempering | 950-1000°C oil or oil quenching |

### ➢ PHYSICAL PROPERTIES

| | |
|---|---|
| Density (g/cm³) | 7.7 |
| Typical hardness (HRc) | 47 |
| Modulus of elasticity at 20°C (N/mm²) | 215 x10³ |
| Thermal conductivity at 20°C (W/m °C) | 30 |
| 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.*