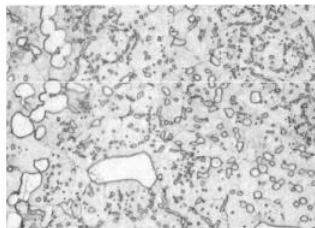# TECHNICAL DATASHEET

Cronidur® 30 – 1.4108 – X 30 CrMoN 15 -1
FT 037 – Version 0

Hardenable nitrogen-doped martensitic stainless steel, whose production via the PESR (Pressurised Electro Slag Remelting) process ensures high inclusion cleanliness. The nitrogen gives it a high hardness value and high resistance to corrosion.
The right kind of forging can optimise the structure's uniformity.
In addition, this alloy also has excellent toughness and wear resistance.

Cronidur® 30 ,
Magnification 1000x

1.4112,
Magnification 1000x

APPLICATIONS	ADVANTAGES
Dental and surgical instruments High-precision bearings (for aviation, Formula 1, etc.) Chemical industry Injection moulds Cutlery (industrial and household) Food industry	High hardness Corrosion resistance Excellent for rectification and polishing Wear resistance Toughness

STANDARDS	SHAPES
WERKSTOFF NR. 1.4108 ASTM F899	**BAR** Diameter 6-80 mm Length 3000-3500 mm Tolerance h9

➢ CHEMICAL COMPOSITION

%	C	Mn	Si	Cr	Mo	Ni	N	Fe
min	0.25			14.0	0.85		0.30	residue
max	0.35	1.00	1.00	16.0	1.10	0.50	0.50	

➤ MECHANICAL PROPERTIES

Condition			Hardness
Annealed state	Heated to 800°C followed by slow cooling		240 HB
After quench			$\geq$ 59 HRc

➤ HEAT TREATMENT

Annealed	780-820°C for 6-8 hours then slow cooling in furnace	
Quenching	Quenching in oil or air: 1000-1030°C Deep-freeze: -80°C to -196°C for quenching $\geq$ 1010°C to eliminate residual austenite	
Tempering	Stress relief: 2 x 150-220°C Tempering: 2 x 170-475°C	
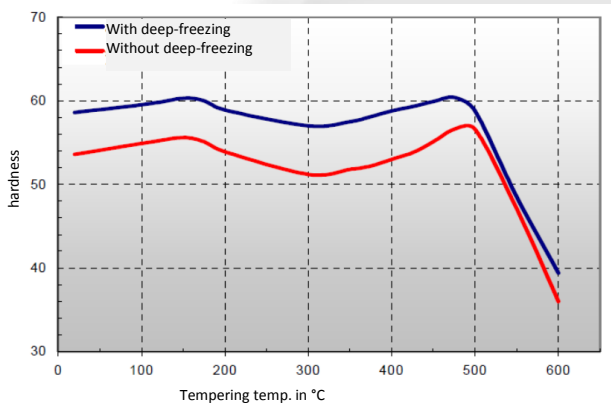
➤ PHYSICAL PROPERTIES

Density (g/cm³)	7.7
Typical hardness (HRc)	55-60
Modulus of elasticity at 20°C (N/mm²)	215 x10³
Thermal conductivity at 20°C (W/m °C)	15
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.