



R250.11

EN: 1.4016
UNS: S43000
T 430

R250.11 (1.4016) Ferritic stainless steels are primarily characterized by their magnetic nature. Unlike austenitic steels (such as 304), ferritic steels are magnetic in all conditions. Ferritic grades offer excellent resistance to stress corrosion cracking (SCC), - especially in chloride-containing environments where austenitic steels often fail. Ferritic steels have low Cold Work Hardening rate which is suitable for cold forming operations. Applications in general are: Element support, Cold formed parts, various household applications.

CHEMICAL COMPOSITION (Nominal) %

C*	Si	Mn	Cr	Ni*	Mo*	N*	Cu*
0.020	0.30	0.70	16.40	0.30	0.10	0.030	0.15

PRE: 17 (PRE = Cr + 3.1x Mo + 25 x N) * Max

PHYSICAL PROPERTIES

Condition: Annealed

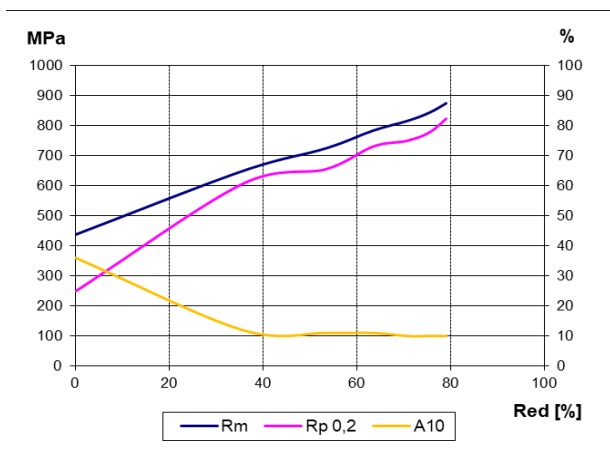
Density	7.7 g / cm ³
Modulus of elasticity, E	220 GPa
Specific heat 0-100°C	460 J / kg°C

TYPICAL MECHANICAL PROPERTIES

Condition: Annealed

Proof strength	Rp0.2	< 330 N / mm ²
Tensile strength	Rm	390-490 N / mm ²
Elongation	A10	> 20 %

DEFORMATION GRAPH



THERMAL TREATMENT

Annealing temperature	750-850 °C
	1382-1562 °F

SCALING TEMPERATURE

Scaling temp. in air	850 °C
	1562 °F

THERMAL CONDUCTIVITY

20 °C	22.0 W / m°C
100 °C	22.5 W / m°C
200 °C	23.5 W / m°C
400 °C	24.5 W / m°C

THERMAL EXPANSION

Thermal expansion per °C x 10-6 from 20°C to:

100 °C	10.0
200 °C	10.0
300 °C	10.5
400 °C	10.5
500 °C	11.0

RESISTIVITY

20 °C	600 μΩmm
100 °C	700 μΩmm
200 °C	750 μΩmm
400 °C	950 μΩmm
600 °C	1100 μΩmm