

Data Sheet: Round/Flat/Square Bars of EN1.4404 – 316L Alumeco A/S	EN:	EN1.4404
	AISI:	316L
	UNS:	S31603
	SS:	2348
	Chemical Symbol:	X2CrNiMo17-12-2
	Alloy type:	Acid-resistance Austenite
	Revision Date:	23-03-2021

Main usage:
<ul style="list-style-type: none"> • Building industry. • Construction and processing industry. • Reinforcement structures.

Main properties:
<ul style="list-style-type: none"> • Good formability and machinability. • Improved corrosion resistance. • Good weldability. • Cannot be hardened by heat treatment but can be hardened by cold working.

Typical Alumeco products with this alloy:
<ul style="list-style-type: none"> • Round Bars- 6-300mm(drawn, hot rolled) • Flat Bars- width 20-100mm, thickness 3-10mm • Square Bars-10-100mm

General Standards:	<ul style="list-style-type: none"> • EN 10088-1: List of stainless steels
Rolled products:	<ul style="list-style-type: none"> • EN 10088-3: Technical delivery conditions for semi finished products, bars, rods, wires, sections & bright products of corrosion resisting steels for general purposes • EN 10278: Dimensions & tolerances of bright steel products. • EN 10060: Hot rolled steel bars for general purposes- Dimensions & tolerances on shape & dimensions. • EN 10058: Hot rolled flat steel bars & steel wide flats for general purposes-Dimensions & tolerances on shape & dimensions. • EN 10059: Hot rolled square steel bars for general purposes- Dimensions & tolerances on shape & dimensions.

Chemical composition. EN10088-3									
C	Cr	Ni	Mo	Mn	Si	P	S	Remarks	Rest
≤ 0,030	16,5 – 18,5	10,0 – 13,0	2,0-2,50	≤ 2,00	≤ 1,00	≤ 0,045	≤ 0,015	N ≤ 0,10	Fe
* For machinability, a controlled sulfur content of 0,015%-0,030% is recommended & permitted. For weldability a controlled sulfur content of 0,008%- 0,030% is recommended & permitted. For polishability, a controlled sulfur content of 0,015% is recommended.									
Mechanical properties:									
Product Type	Temper	Product Range d/w/t mm	Rm MPa	Rp_{0.2} Min. MPa	A_{80 mm} / A Min. %	Hardness* HB			
Round Bars	Drawn, Hot rolled	6 < t ≤ 160	500 - 700	200	40	215			
Round Bars	Drawn, Hot rolled	160 < t ≤ 300	500 - 700	200	-	215			
Flat Bars	Drawn, Hot rolled	w: 20-100 3 < t ≤ 10	400	-	25	-			
Square Bars	Drawn, Hot rolled	10 < t ≤ 100	500 - 700	200	40	215			
thha* Information values only.									
Physical properties:									
Density g/cm³	Electrical resistivity Ω.mm² / m	Thermal conductivity W/m K	Thermal expansion (μm m⁻¹ K⁻¹)	Specific heat (J kg⁻¹ K⁻¹)	E - modulus (N / mm²)	Magnetizable			
8,0	0,75	15	16,0	500	200.000	No			