



FERRITIC STAINLESS STEEL ACX 515	
EN DESIGNATION	ASTM DESIGNATION
1.4510	430Ti
X3CrTi17	S43035

**DESCRIPTION** ACX 515 is a variation of ACX 500 with titanium content. This element gives the steel very good resistance to intergranular corrosion. This addition makes it improve its weldability, since it enhances tenacity and ductility. Moreover, it exhibits good drawing conditions.

CHEMICAL COMPOSITION	C	Si	Mn	P	S	Cr	Ti
	≤0.05	≤1.00	≤1.00	≤0.040	≤0.015	16.00-18.00	[4 (C+N)+0.15] a 0.80

**APPLICATIONS**

- Washing machines
- Tubes
- Exhaust systems

MECHANICAL PROPERTIES AFTER COLD ROLLING AND FINAL ANNEALING	Property	Value
	<b>Rp<sub>0.2</sub></b>	>240 N/mm <sup>2</sup>
	<b>Rm</b>	420 - 600 N/mm <sup>2</sup>
	<b>Elongation</b>	> 23%
	<b>Hardness</b>	< 185 HB

**PHYSICAL PROPERTIES** At 20°C it has a density of 7.7 kg/dm<sup>3</sup> and a specific heat of 460 J/kg·K

	20°C	100°C	200°C	300°C	400°C	500°C
<b>Modulus of elasticity (GPa)</b>	220	215	210	205	195	-
<b>Mean coefficient of linear expansion between 20°C (10<sup>-6</sup> x K<sup>-1</sup>) and</b>	-	10	10	10.5	10.5	11
<b>Thermal conductivity (W/m·K)</b>	25	28	30	31.5	33	34
<b>Electrical resistivity (Ω·mm<sup>2</sup>/m)</b>	0.60	0.75	0.95	1.10	1.20	1.30

**WELDING** The recommended consumable electrodes are:

Shielded electrodes	Wires and rods	Hollow electrodes
E 23 12 L	G 23 12 L (GMAW)	T 23 12 L
ER 308L	W 23 12 L (GTAW)	308L
ER 316L	P 23 12 L (PAW)	ER 316L
	S 23 12 L (SAW)	
	ER 308L	
	ER 316L	

**CORROSION RESISTANCE** Thanks to the titanium stabilization, ACX 515 has good intergranular corrosion resistance. As ferritic stainless steel has good stress corrosion cracking resistance.

**SURFACE CLEANING** Wash the surface with neutral soap and water applied with a cloth or a brush without scratching the stainless steel. Then, always rinse the stainless steel with water to remove completely the cleaning agent. Finally, it is recommended to dry the surface to preserve a good superficial condition. In severe environments, a frequent cleaning is strongly recommended.

**SPECIFICATIONS** It can be delivered according to EN 10088-2 and ASTM A-480/A-480M standard requirements.

