



FERRITIC STAINLESS STEEL ACX 570	
EN DESIGNATION	ASTM DESIGNATION
1.5421	-
-	-

DESCRIPTION ACX 570 is a low carbon variation of ACX 500, that contains molybdenum and niobium. It has an improved behavior against pitting and intergranular corrosion compared to traditional ferritic and austenitic steels. This addition makes this steel have good ductility, toughness and resistance to sensitization, even in welds.

CHEMICAL COMPOSITION	C	Si	Mn	P	S	Cr	Mo	Ti	Nb	N
	≤0.025	≤1.00	≤1.00	≤0.040	≤0.015	17.50-19.50	2.00-2.50	≤0.010	[0.26 + 7(C+N)] a 0.80	≤0.030

APPLICATIONS

- Agricultural-food industry
- Heat exchangers and Q71 hot water equipment
- Solar panels, kitchen equipment and automobile components
- Decoration and architecture 2021

MECHANICAL PROPERTIES AFTER COLD ROLLING AND FINAL ANNEALING	Property	Value
	R_{p0.2}	>320 N/mm ²
	R_m	420 - 640 N/mm ²
	Elongation	> 28%
	Hardness	< 217 HB

PHYSICAL PROPERTIES At 20°C it has a density of 7.7 kg/dm³ and a specific heat of 460 J/kg·K

	20°C	100°C	200°C	300°C	400°C	500°C
Modulus of elasticity (GPa)	220	215	210	205	195	-
Mean coefficient of linear expansion between 20°C (10⁻⁶ x K⁻¹) and	-	10.4	10.8	11.2	11.6	11.9
Thermal conductivity (W/m·K)	23	24.8	27.3	29.5	31	32
Electrical resistivity (Ω·mm²/m)	0.80	-	-	-	-	-

WELDING The recommended consumables:

Shielded electrodes	Wires and rods	Hollow electrodes
E 19 12 3 L	W 19 12 3 L (GMAW) W 19 12 3 L (GTAW) P 19 12 3 L (PAW)	T 19 12 3 L
316L	S 19 12 3 L (SAW) 316L	316L

CORROSION RESISTANCE This type of stainless steel has an improved resistance to pitting corrosion, compared to traditional ferritic and austenitic stainless steels. The addition of niobium improves the resistance to intergranular corrosion. It is not susceptible to stress corrosion cracking.

SURFACE CLEANING It is essential to periodically carry out proper cleaning practices to preserve surfaces indefinitely and obtain the best performance from stainless steel.
For proper cleaning, the use of water and neutral soaps is recommended, applied with a cloth or brush that does not scratch the stainless steel. Always finish the operation with a good rinsing with water, to achieve the complete elimination of the cleaning product used.
Chlorinated products should be avoided. If its use is essential, the contact must be minimal and must be followed by a copious rinse with water.

SPECIFICATIONS ACX 570 It can be supplied according to the requirements of the EN-10088-2 and ASTM-A-240 standards.

