



AUSTENITIC STAINLESS STEEL ACX 297	
EN DESIGNATION	AISI EN DESIGNATION
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X6CrNiTi18-10	



DESCRIPTION ACX 297 belongs to the range of austenitic Cr-Ni steels. These steels are the most versatile steels on the market, making them suitable for a multitude of applications. In particular, these steels have good corrosion resistance and good forging and welding performance. Titanium stabilisation improves intergranular corrosion resistance and resistance to oxidation at high temperatures, thus allowing their use in the sensitisation temperature ranges.

CHEMICAL COMPOSITION	C	Si	Mn	P	S	N(ppm)	Cr	Cu	Mo	Ni	Ti
	≤0.07	≤0.75	≤2.00	≤0.045	≤0.030	-	17.00-19.00	-	-	9.00-10.00	5x(C+N) a 0.70

- APPLICATIONS**
- Pipes
 - Welded structures
 - Aeronautical industry
 - Resistors
 - Automobile exhaust system

MECHANICAL PROPERTIES	Rp _{0.2} (MPa)	Rm (MPa)	Elongation (%)	Hardness (HB)
Wire rod	≥190	500 - 700	≥40	≤215
Bar	≥ 190	500 - 950	≥ 25	-

PHYSICAL PROPERTIES	Elastic modulus	Thermal expansion average coefficient (20°C-100°C)	Thermal conductivity	Electrical resistivity	Density
	200 Gpa	16 μm/m°C	15 W/m·k	0.47 Ω·mm ² /m	7.9 kg/dm ³

WELDING	Covered electrodes	Wires and rods	Hollow electrodes
	E 19 9 Nb	G 19 9 L (GMAW)	T 19 9 L
	308L	W 19 9 L (GTAW)	308L
	347	P 19 9 L (PAW)	347
		S 19 9 L (SAW)	
		308L	
		347	

INTERGRANULAR CORROSION ACX 297, being stabilised with titanium, is less susceptible to intergranular corrosion than ACX 125. It allows continued use in the material sensitisation temperature range (550°C to 850°C) and in operations involving slow cooling within this temperature range.

CORROSION RESISTANCE The austenitic stainless steels of the Cr-Ni family provide good corrosion resistance performance in a large number of applications.

As an example, these steels present corrosion rates of less than 0.10 mm/year in the following media:

- 20% acetic acid at 80°C.
- 90% formic acid at 20°C.
- Phosphoric acid at 20% at 60°C.
- Nitric acid 20% at 50°C.
- Sulphuric acid at 90% at 20°C.
- Toluene
- Milk, beer, juice and wine



ACX 297 | AUSTENITIC STAINLESS STEEL



SPECIFICATIONS | Can be supplied in accordance with the requirements of Standards 10088-3 and ASTM A-479 'Condition: annealed'.

CERTIFICATES



Sistema de Gestión
 ISO 9001:2015
 ISO 14001:2015
 ISO 50001:2018



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