MARTENSITIC STAINLESS STEEL ACX 360	
DESIGNATION EN	DESIGNATION ASTM
1.4028	420
X30Cr13	S42000

DESCRIPTION

Martensitic stainless steels exhibit an excellent combination of mechanical resistance and hardness by the suitable thermal treatment. Moreover they are ductile and can be a good option for shaping and transformation operations. ACX 360 has good wear resistance and average corrosion resistance.

CHEMICAL COMPOSITION

C	Si	Mn	P	S	Cr
0.26 - 0.35	≤1.00	≤1.50	≤0.040	≤0.015	13.00-14.00

APPLICATIONS

Among others:
- Cutting tools.
- Cutlery.
- Dental and surgical instruments.
- Petrochemical and paper industry.

MECHANICAL PROPERTIES AFTER COLD ROLLING AND FINAL ANNEALING EN 10088-2

Rm	≤ 740 N/mm^2
Elongation	≥ 15%
Hardness	≤ 97 HRB

PHYSICAL PROPERTIES EN 10088-1

At 20^{0}C, it has a density of 7.7 kg/dm^3 and a specific heat of 460 J/kg·K

	20^{0}C	100^{0}C	200^{0}C	300^{0}C	400^{0}C
Modulus of elasticity (GPa)	215	212	205	200	190
Mean coefficient of linear expansion between 20^{0}C (10^{-6} x K^{-1})	-	10.5	11.0	11.5	12.0
Thermal conductivity (W/m·K)	30	-	-	-	-
Electrical resistivity (Ω·mm^2/m)	0.65	-	-	-	-

WELDING

Only under specialized procedures.
Due to the high hardenability of martensitic stainless steels, welding operations can produce formation of martensite in the welding and heat affected zones. In order to avoid cracking due to the formation of martensite, previous and post heating treatment is recommended.

SURFACE CLEANING

It is mandatory to carry out regular cleaning practices to maintain surfaces indefinitely and to obtain the best service of stainless steel.

Wash the surface with neutral soap applied with a soft cloth or a brush without scratching the stainless steel surface. Then, rinse thoroughly to get the complete dirt and cleaner removal. In case of the use of chloride content products, the rinse is mandatory.

Finally, it is recommended to dry surfaces to preserve them in good conditions.

SPECIFICATIONS

They can be delivered according to EN and ASTM and comply with the European Directives for:

- Food industry, RE 1935/2004.
- Hexavalent chromium, ROHS.