



| AUSTENITIC STAINLESS STEEL ACX 125 | |
|---------------------------------------|------------------|
| EN DESIGNATION | AISI DESIGNATION |
| 1.4301 | 304 |
| X5CrNi18-10 | |



DESCRIPTION | ACX 125 belongs to the range of austenitic Cr-Ni stainless steels. These stainless steels are the most versatile stainless steels on the market, making them suitable for a multitude of applications. These stainless steels combine good corrosion resistance in a wide range of environments with outstanding mechanical properties.

| CHEMICAL COMPOSITION | C | Si | Mn | P | S | N(ppm) | Cr | Cu | Mo | Ni | Ti |
|----------------------|-------|-------|-------|--------|--------|--------|-------------|----|----|-----------|----|
| | ≤0.07 | ≤0.75 | ≤2.00 | ≤0.045 | ≤0.030 | ≤1000 | 18.00-19.00 | - | - | 8.00-9.00 | - |

APPLICATIONS |

- Kitchenware
- Domestic appliances
- General industry
- Cutlery

| MECHANICAL PROPERTIES EN 10088-3 | Rp _{0,2} (MPa) | Rm (MPa) | Elongation (%) | Hardness (HB) |
|-------------------------------------|-------------------------|----------|----------------|---------------|
| Wire rod | ≥190 | 500-700 | ≥45 | ≤215 |

| PHYSICAL PROPERTIES EN 1088-1 | 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 | 0,73 Ω·mm ² /m | 7,9 kg/dm ³ |

WELDING | The consumables recommended are the following:

| Coated electrodes | Wires & rods | Hollow electrodes |
|-------------------|--|-------------------|
| E 19 9 Nb 308L | G 19 9 L (GMAW) W 19 9 L (GTAW) P 19 9 L (PAW) S 19 9 L (SAW) 308L | T 19 9 L 308L |

If the welding process involves risks of sensitisation and will be exposed to aggressive environments which may cause intergranular corrosion, it is recommended to select stainless steel grades ACX226 o ACX227.

PITTING CORROSION | ACX 125 is used efficiently in environments with a chloride concentration lower than 200 ppm.

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 have 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.
- 20% phosphoric acid at 60°C.
- Nitric acid 20% at 50°C.
- Sulphuric acid 90% at 20°C.



ACX 125 | AUSTENITIC STAINLESS STEEL



SPECIFICATIONS | Can be supplied in accordance with the requirements of international standards 10088-3 and ASTM A-276 "Condition: Annealed".

CERTIFICATES



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



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