

1.4439

| | %C | %Si | %Mn | %P | %S | %Cr | %Mo | %Ni | %N |
|------------------|--------|-------|-------|--------|--------|------|------|-------|------|
| X2CrNiMoN17-13-5 | - | - | - | - | - | 16.5 | 4.00 | 12.50 | 0.12 |
| | ≤0.030 | ≤1.00 | ≤2.00 | ≤0.045 | ≤0.015 | 18.5 | 5.00 | 14.50 | 0.22 |

STEEL PROPERTIES

1.4439 is a derivative and better austenitic variant of the 316 and 317 steel grades, having higher Nickel, Molybdenum and Nitrogen content, which significantly increases the product's resistance to pitting and crevice corrosion in Cl environments.

EQUIVALENT GRADES

| EN 10088-3 | 1.4439 | X2CrNiMoN17-13-5 |
|------------|--------------|------------------|
| AISI | 317LMN | |
| AFNOR | Z3CND18-14-0 |)5Az |
| JIS | SUS317J1 | |
| UNS | S31726 | |

APPLICATIONS

1.4439 is used for the production of special pumps, installations, radiators, apparatus, heat exchangers or tanks for chemicals - sulfuric, formic, nitric, acetic or sodium hydroxide in the form of bars, forgings, sheets and pipes.

HEAT TREATMENT

1.4439 is offered in solution treated condition.



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Mechanical properties at room temperature for 1.4439 as per EN 10088-1 in the usual delivery condition

| Flat products with thickness a | Heat Treatment Condition | Hardness HB max. | 0.2% Proof strength MPa. min. | Tensile Strength R _m MPa. | A % Min. Long Products | |
|-----------------------------------|--------------------------------|---------------------|-------------------------------------|--|---------------------------|--|
| a ≤ 160 | +AT | 250 | 280 | 580 to 800 | 35 | |
| | | | | | | |

Physical properties of 1.4439 as per EN 10088-3

| Density Kg/dm² | Linear Expansion Coefficient 10 ⁻⁶ k ⁻¹ Between 20°C and (°C) | | | | ent | Thermal conductivity W/(m.K) 20° | Specific Heat capacity kJ(kg.K) 20° | Electrical resistivity 2 /m At 20°C | Magnetiza bility |
|-------------------|--|-------|-------|-------|-------|---|---|--|---------------------|
| | 100°C | 200°C | 300°C | 400°C | 500°C | 14 | | | |
| 8.0 | 16.0 | 16.5 | 17.0 | 17.5 | 18.0 | 14 | - | 0.85 | No |