

1.4003

| | %C | %Si | %Mn | %P | %S | %Cr | %Ni | %N |
|------------------|--------|-------|-------|--------|--------|------|------|--------|
| X2CrNi-12 | - | - | - | - | - | 10.5 | 0.30 | - |
| | ≤0.030 | ≤1.00 | ≤1.50 | ≤0.040 | ≤0.015 | 12.5 | 1.00 | ≤0.030 |

STEEL PROPERTIES

1.4003 is a utility ferritic stainless steel, the utility ferritic steel is an alternative to mild steel. 1.4003 is highly alloyed stainless steel such as strength, corrosion and abrasion resistance, durability and low maintenance.

EQUIVALENT GRADES

| | | |
|------------|--------|-----------|
| EN 10088-3 | 1.4003 | X2CrNi-12 |
| AISI | 3Cr12 | |
| AFNOR | ZBCA12 | |
| BS | 405S17 | |
| UNS | S40977 | |

APPLICATIONS

1.4003 is used in cable trays, bulk wet material handling, railway car hoppers, tanks and containers. It is used in manufacturing conveyers, chutes, troughs.

HEAT TREATMENT

1.4003 is offered in soft annealed condition.

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Mechanical properties at room temperature for 1.4003 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 ≤ 100 | +A | 200 | 260 | 450 to 600 | 20 |

Physical properties of 1.4003 as per EN 10088-3

| Density Kg/dm ² | Linear Expansion Coefficient 10 ⁻⁶ k ⁻¹ Between 20°C and (°C) | | | | | Thermal conductivity W/(m.K) 20° | Specific Heat capacity kJ(kg.K) 20° | Electrical resistivity 2 /m At 20°C | Magnetizability |
|----------------------------|---|-------|-------|-------|-------|----------------------------------|-------------------------------------|-------------------------------------|-----------------|
| | 100°C | 200°C | 300°C | 400°C | 500°C | | | | |
| 7.7 | 10.4 | 10.8 | 11.2 | 11.6 | 11.9 | 25 | - | 0.60 | yes |