

This page is mainly introduced the PYROMET CTX-1 chemical information,mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of PYROMET CTX-1,such as it is commonly used in bars, sheet,plates, steel coils, steel pipes,forged and other materials application.

## Data Table for Grades Stainless Steels PYROMET CTX-1

| PYROMET CTX-1 Standard Number: |                  |                                          |
|--------------------------------|------------------|------------------------------------------|
| ITEM                           | Standard Number  | Descriptions                             |
| 1                              | SAE J 470 (1976) | Wrought Nickel and Nickel-Related Alloys |

| PYROMET CTX-1 Chemical composition(mass fraction)(wt.%) |         |           |
|---------------------------------------------------------|---------|-----------|
| Chemical                                                | Min.(%) | Max.(%)   |
| C                                                       |         | 0.03      |
| Si                                                      |         | 0.20      |
| Mn                                                      |         | 0.20      |
| Cr                                                      |         | 0.20      |
| Ni                                                      |         | 37.70     |
| Mo                                                      |         | 0.20      |
| Co                                                      |         | 16.00     |
| W                                                       |         |           |
| Al                                                      |         | 1.00      |
| Cu                                                      |         | 0.50      |
| Ti                                                      |         | 1.75      |
| Fe                                                      |         | remaining |
| B                                                       |         | 0.0075    |
| P                                                       |         | 0.015     |
| S                                                       |         | 0.015     |
| Nb/Ta                                                   |         | 3.00      |

| PYROMET CTX-1 Physical Properties |         |             |
|-----------------------------------|---------|-------------|
| Tensile strength                  | 115-234 | σb/MPa      |
| Yield Strength                    | 23      | σ 0.2 ≥/MPa |
|                                   |         |             |

|            |         |                      |
|------------|---------|----------------------|
| Elongation | 65      | $\delta 5 \geq (\%)$ |
| $\psi$     | -       | $\psi \geq (\%)$     |
| Akv        | -       | Akv $\geq J$         |
| HBS        | 123-321 | -                    |
| HRC        | 30      | -                    |

### PYROMET CTX-1 Mechanical Properties

|                  |         |                                  |
|------------------|---------|----------------------------------|
| Tensile strength | 231-231 | $\sigma_b / \text{MPa}$          |
| Yield Strength   | 154     | $\sigma_{0.2} \geq / \text{MPa}$ |
| Elongation       | 56      | $\delta 5 \geq (\%)$             |
| $\psi$           | -       | $\psi \geq (\%)$                 |
| Akv              | -       | Akv $\geq J$                     |
| HBS              | 235-268 | -                                |
| HRC              | 30      | -                                |

### PYROMET CTX-1 Heat Treatment Regime

| Annealing | Quenching | Tempering | Normalizing | Q & T |
|-----------|-----------|-----------|-------------|-------|
| √         | √         | √         | √           | √     |

### PYROMET CTX-1 Range of products

| Product type    | Products                                 | Dimension                  | Processes                                   | Deliver Status                                                |
|-----------------|------------------------------------------|----------------------------|---------------------------------------------|---------------------------------------------------------------|
| Plates / Sheets | Plates / Sheets                          | 0.08-200mm(T)*W*L          | Forging, hot rolling and cold rolling       | Annealed, Solution and Aging, Q+T, ACID-WASHED, Shot Blasting |
| Steel Bar       | Round Bar, Flat Bar, Square Bar          | $\Phi 8$ -1200mm*L         | Forging, hot rolling and cold rolling, Cast | Black, Rough Turning, Shot Blasting,                          |
| Coil / Strip    | Steel Coil / Steel Strip                 | 0.03-16.0x1200mm           | Cold-Rolled & Hot-Rolled                    | Annealed, Solution and Aging, Q+T, ACID-WASHED, Shot Blasting |
| Pipes / Tubes   | Seamless Pipes/Tubes, Welded Pipes/Tubes | OD:6-219mm x WT:0.5-20.0mm | Hot extrusion, Cold Drawn, Welded           | Annealed, Solution and Aging, Q+T, ACID-WASHED                |

## We can produce Stainless Steels the specifications follows:

Note:

- (1) listed in the table apex diameter (d), to steel thickness (a) multiples said.
- (2) in the ASTM A6 standard specified scope can meet any additional conditions.
- (3) from the standard for 50 mm (2 in).

Mechanical properties

**Mechanische Eigenschaften****Caracteristiques mecaniques****ReH Minimum yield strength / Mindestwert der oberen Streckgrenze / Limite d'élasticité minimale****Rm Tensile strength / Zugfestigkeit / Resistance a la traction****A Minimum elongation / Mindestwert der Bruchdehnung / Allongement minimal****J Notch impact test / Kerbschlagbiegeversuch / Essai de flexion par choc****Round bar:****Diameter : 1mm-2000mm****Square bar:****Size: 50mm \* 50mm-600mm \*600mm****Plate steel/flat bar:****Size: Thickness: 0.1mm-800mm Width: 10mm to 1500mm****Tube/pipe:****Size: OD: 6-219mm WT: 1-35 mm.****Cold-rolled sheet: Thickness: 2-5mm Width:1000mm Length: 2000mm****Hot-rolled sheet: Thickness:6-80mm Width: 210-610mm****Length: We can supply any length based on the customer's requirement.****Forging/hot rolling/ extrusion of steel.****Forging: Shafts with flanks/pipes/tubes/slugs/donuts/cubes/other shapes****Finished goods condition: hot forging/hot rolling + annealing/normalizing + tempering/quenching + tempering/any conditions based on the customer's requirement****Surface conditions: scaled (hot working finish)/ground/rough machining/fine machining/based on the customer's requirement****Furnaces for metallurgical processing: electrode arc + LF/VD/VOD/ESR/Vacuum consumable electrode.****Ultrasonic inspection: 100% ultrasonic inspection for any imperfections or based on the customer's requirement.****UTS according to SEP 1921 C/c,D/d,E/e;A388 or GB/T 6402****Excellent service for all kinds of industries, with advantages of technologies, equipment and price.****We serve you with our honesty, integrity, and professionalism.**