

This page is mainly introduced the B 690 N08366 chemical information,mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of B 690 N08366,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 B 690 N08366

| B 690 N08366 Standard Number: |                 |  |
|-------------------------------|-----------------|--|
| ITEM                          | Standard Number | Descriptions   |
| 1                             | B 690 (2002)    | Iron-Nickel-Chromium-Molybdenum Alloys (UNS N08366 and UNS N08367)<br>Seamless Pipe and Tube |

| B 690 N08366 Chemical composition(mass fraction)(wt.%) |         |         |
|--|---------|---------|
| Chemical   | Min.(%) | Max.(%) |
| C  |         | 0.035   |
| Mn   |         | 2.00    |
| Si   |         | 1.00    |
| P  |         | 0.03    |
| S  |         | 0.03    |
| Cr   | 20.00   | 22.00   |
| Ni   | 23.50   | 25.50   |
| Mo   | 6.00    | 7.00    |

| B 690 N08366 Physical Properties |         |                          |
|----------------------------------|---------|--------------------------|
| Tensile strength                 | 115-234 | $\sigma_b$ /MPa          |
| Yield Strength                   | 23      | $\sigma_{0.2} \geq$ /MPa |
| Elongation                       | 65      | $\delta 5 \geq$ (%)      |
| $\psi$                           | -       | $\psi \geq$ (%)          |
| Akv                              | -       | Akv $\geq$ /J            |
| HBS                              | 123-321 | -                        |
| HRC                              | 30      | -                        |

| B 690 N08366 Mechanical Properties |         |                 |
|------------------------------------|---------|-----------------|
| Tensile strength                   | 231-231 | $\sigma_b$ /MPa |

|                |         |                                |
|----------------|---------|--------------------------------|
| Yield Strength | 154     | $\sigma_{0.2} \geq \text{MPa}$ |
| Elongation     | 56      | $\delta_5 \geq (\%)$           |
| $\psi$         | -       | $\psi \geq (\%)$               |
| Akv            | -       | $Akv \geq \text{J}$            |
| HBS            | 235-268 | -                              |
| HRC            | 30      | -                              |

### B 690 N08366 Heat Treatment Regime

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

### B 690 N08366 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.