

**This page is mainly introduced the F738 Class C1-110 S41000 Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of F738 Class C1-110 S41000, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.**

## **Datasheet for Steel Grades Specialsteel F738 Class C1-110 S41000**

### F738 Class C1-110 S41000 Standard Number:

| ITEM | Standard Number | Descriptions   |
|------|-----------------|--|
| 1    | F 738M (2002)   | Standard Specification for Stainless Steel Metric Bolts, Screws, and Studs |

### F738 Class C1-110 S41000 Chemical composition (mass fraction) (wt.%)

| Chemical | Min.(%) |    |    |    |    | Max.(%) |    |    |       |  |
|----------|---------|----|----|----|----|---------|----|----|-------|--|
| C        |         |    |    |    |    | 0.15    |    |    |       |  |
| Mn       |         |    |    |    |    | 1.00    |    |    |       |  |
| Si       |         |    |    |    |    | 1.00    |    |    |       |  |
| P        |         |    |    |    |    | 0.04    |    |    |       |  |
| S        |         |    |    |    |    | 0.03    |    |    |       |  |
| Cr       | 11.50   |    |    |    |    | 13.50   |    |    |       |  |
| Ni       |         |    |    |    |    |         |    |    |       |  |
| Mo       |         |    |    |    |    |         |    |    |       |  |
| C        | Si      | Mn | P  | S  | Cr | Ni      | Mo | V  | Ta    |  |
| W        | N       | Cu | Co | Pb | B  | Nb      | Al | Ti | Other |  |
|          |         |    |    |    |    |         |    |    |       |  |

Standard Specification for Stainless Steel Metric Bolts, Screws, and Studs

| F738 Class C1-110 S41000 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      | -                        |

| F738 Class C1-110 S41000 Mechanical Properties |         |                          |
|--|---------|--------------------------|
| Tensile strength                               | 231-231 | $\sigma_b$ /MPa          |
| Yield Strength                                 | 154     | $\sigma_{0.2} \geq$ /MPa |
| Elongation                                     | 56      | $\delta 5 \geq$ (%)      |
| $\psi$   | -       | $\psi \geq$ (%)          |
| Akv  | -       | Akv $\geq$ /J            |
| HBS  | 235-268 | -                        |
| HRC  | 30      | -                        |

| F738 Class C1-110 S41000 Heat Treatment Regime |           |           |             |       |
|--|-----------|-----------|-------------|-------|
| Annealing                                      | Quenching | Tempering | Normalizing | Q & T |
| √  | √         | √         | √           | √     |

### F738 Class C1-110 S41000 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          | Φ8-1200mm*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 Specialsteel the specifications follows:**