

**This page is mainly introduced the AF 1410 Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of AF 1410, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.**

## Datasheet for Steel Grades Specialsteel AF 1410

### AF 1410 Standard Number:

| ITEM | Standard Number      | Descriptions   |
|------|----------------------|--|
| 1    | SAE AMS 6522C (2003) | Steel Plate 2.0Cr - 10Ni - 14Co - 1.0Mo (0.13 - 0.17C) Vacuum Melted, Normalized, and Overaged |

### AF 1410 Chemical composition (mass fraction) (wt.%)

| Chemical | Min.(%) | Max.(%) |    |    |    |    |    |    |       |
|----------|---------|---------|----|----|----|----|----|----|-------|
| C        | 0.13    | 0.17    |    |    |    |    |    |    |       |
| Si       |         | 0.10    |    |    |    |    |    |    |       |
| Mn       |         | 0.10    |    |    |    |    |    |    |       |
| P        |         | 0.008   |    |    |    |    |    |    |       |
| S        |         | 0.005   |    |    |    |    |    |    |       |
| Ni       | 9.50    | 10.50   |    |    |    |    |    |    |       |
| Cr       | 1.80    | 2.20    |    |    |    |    |    |    |       |
| Al       |         | 0.015   |    |    |    |    |    |    |       |
| Cu       |         |         |    |    |    |    |    |    |       |
| Ti       |         | 0.015   |    |    |    |    |    |    |       |
| Fe       |         |         |    |    |    |    |    |    |       |
| N        |         | 0.0015  |    |    |    |    |    |    |       |
| Mo       | 0.90    | 1.10    |    |    |    |    |    |    |       |
| W        |         |         |    |    |    |    |    |    |       |
| O        |         | 0.0015  |    |    |    |    |    |    |       |
| Co       | 13.50   | 14.50   |    |    |    |    |    |    |       |
| C        | Si      | Mn      | P  | S  | Cr | Ni | Mo | V  | Ta    |
| W        | N       | Cu      | Co | Pb | B  | Nb | Al | Ti | Other |

Steel Plate 2.0Cr - 10Ni - 14Co - 1.0Mo (0.13 - 0.17C) Vacuum Melted, Normalized, and Overaged

### AF 1410 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      | -                        |

### AF 1410 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      | -                        |

### AF 1410 Heat Treatment Regime

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

### AF 1410 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, | $\Phi 8$ -1200mm*L | Forging, hot rolling and              | Black, Rough Turning,   |

|               |  |                            |                                   |   |
|---------------|--|----------------------------|-----------------------------------|---|
|               | Square Bar                               |                            | cold rolling, Cast                | 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:**