

This page is mainly introduced the S30478 Datasheet, including chemical information,mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of S30478, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

## **Datasheet for Steel Grades Special Alloy S30478**

|                                   | S30478 Standard Number: |  |  |  |  |  |
|-----------------------------------|-------------------------|--|--|--|--|--|
| ITEM Standard Number Descriptions |                         |  |  |  |  |  |

| S30478 Chemical composition(mass fraction)(wt.%) |          |     |       |         |           |         |   |         |    |       |
|--|----------|-----|-------|---------|-----------|---------|---|---------|----|-------|
| Chemical   |          |     |       | Min.(%) |           |         |   | Max.(%) |    |       |
| С  | Si       | Mn  | Р     | S       | Cr        | Ni      |   | Мо      | V  | Ta    |
| 0.08   | 1.0      | 2.0 | 0.045 | 0.03    | 18.0-20.0 | 7.5-10. | 5 |         |    |       |
| W  | N        | Cu  | Co    | Pb      | В         | Nb      |   | Al      | Ti | Other |
|  | 0.15-0.3 |     |       |         |           | 0.15    |   |         |    |       |

This standard specifies the stainless steel rods order contents, classification, code, size, shape, weight and allowable deviation, technical requirements, test methods, inspection rules, packaging, logo and certificate of quality. This standard applies to the size is not more than 250 mm hot rolled and forged stainless steel rods. The supply and demand both sides talks things over, can also supply the size larger than 250 mm hot rolled and forged stainless steel rods.

| S30478 Physical Properties |         |             |  |  |  |  |
|----------------------------|---------|-------------|--|--|--|--|
| Tensile strength           | 115-234 | σb/MPa      |  |  |  |  |
| Yield Strength             | 23      | σ 0.2 ≥/MPa |  |  |  |  |
| Elongation                 | 65      | δ5≥ (%)     |  |  |  |  |
| Ψ                          | -       | ψ≥ (%)      |  |  |  |  |
| Akv                        | -       | Akv≥/J      |  |  |  |  |
| HBS                        | 123-321 | -           |  |  |  |  |
| HRC                        | 30      | -           |  |  |  |  |



| S30478 Mechanical Properties |         |             |  |  |  |  |
|------------------------------|---------|-------------|--|--|--|--|
| Tensile strength             | 231-231 | σb/MPa      |  |  |  |  |
| Yield Strength               | 154     | σ 0.2 ≥/MPa |  |  |  |  |
| Elongation                   | 56      | δ5≥(%)      |  |  |  |  |
| Ψ                            | -       | ψ≥(%)       |  |  |  |  |
| Akv                          | -       | Akv≥/J      |  |  |  |  |
| HBS                          | 235-268 | -           |  |  |  |  |
| HRC                          | 30      | -           |  |  |  |  |

| S30478 Heat Treatment Regime                    |   |   |   |   |  |  |  |
|---|---|---|---|---|--|--|--|
| Annealing Quenching Tempering Normalizing Q & T |   |   |   |   |  |  |  |
| √   | √ | √ | √ | √ |  |  |  |

| S30478 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<br>Aging, Q+T, ACID-<br>WASHED, Shot Blasting |  |  |  |
| Steel Bar                | Round Bar, Flat Bar,<br>Square Bar          | Ф8-1200mm*L                   | Forging, hot rolling and cold rolling, Cast | Black, Rough Turning,<br>Shot Blasting,                              |  |  |  |
| Coil / Strip             | Steel Coil /Steel Strip                     | 0.03-16.0x1200mm              | Cold-Rolled & Hot-<br>Rolled                | Annealed, Solution and<br>Aging, Q+T, ACID-<br>WASHED, Shot Blasting |  |  |  |
| Pipes / Tubes            | Seamless Pipes/Tubes,<br>Welded Pipes/Tubes | OD:6-219mm x<br>WT:0.5-20.0mm | Hot extrusion, Cold<br>Drawn, Welded        | Annealed, Solution and<br>Aging, Q+T, ACID-<br>WASHED                |  |  |  |

## We can produce Special Alloy the specifications follows: