

This page is mainly introduced the 1Cr5Mo Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of 1Cr5Mo, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

## Datasheet for Steel Grades Specialsteel 1Cr5Mo

### 1Cr5Mo Standard Number:

| ITEM | Standard Number  | Descriptions  |
|------|------------------|---|
| 1    | GB 6479 (2000)   | Seamless steel tubes for high-pressure chemical fertilizer equipments |
| 2    | GB 9948 (2006)   | Seamless steel tubes for petroleum cracking                           |
| 3    | GB/T 1221 (1992) | Heat-resisting steel bars   |
| 4    | JB 4726 (2000)   | Carbon and Low-alloy Steel Forgings for Pressure Vessels              |
| 5    | JB/T 6398 (2006) | Heavy stainless acid resistant and heat resistant steel forgings      |

### 1Cr5Mo Chemical composition(mass fraction)(wt.%)

| Chemical |    | Min.(%) |    |    |    |    | Max.(%) |    |       |  |
|----------|----|---------|----|----|----|----|---------|----|-------|--|
| C        |    |         |    |    |    |    | 0.15    |    |       |  |
| Si       |    |         |    |    |    |    | 0.50    |    |       |  |
| Mn       |    |         |    |    |    |    | 0.60    |    |       |  |
| P        |    |         |    |    |    |    | 0.035   |    |       |  |
| S        |    |         |    |    |    |    | 0.030   |    |       |  |
| Ni       |    |         |    |    |    |    | 0.60    |    |       |  |
| Cr       |    | 4.00    |    |    |    |    | 6.00    |    |       |  |
| Mo       |    | 0.45    |    |    |    |    | 0.60    |    |       |  |
| C        | Si | Mn      | P  | S  | Cr | Ni | Mo      | V  | Ta    |  |
| W        | N  | Cu      | Co | Pb | B  | Nb | Al      | Ti | Other |  |
|          |    |         |    |    |    |    |         |    |       |  |

1Cr5Mo

### 1Cr5Mo 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      | -                        |

| 1Cr5Mo 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      | -                        |

| 1Cr5Mo Heat Treatment Regime |           |           |             |       |
|------------------------------|-----------|-----------|-------------|-------|
| Annealing                    | Quenching | Tempering | Normalizing | Q & T |
| √                            | √         | √         | √           | √     |

| 1Cr5Mo 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:**

