

This page is mainly introduced the 1Cr13Mo Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of 1Cr13Mo, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

## Datasheet for Steel Grades Specialsteel 1Cr13Mo

| 1Cr13Mo Standard Number: |                  |                           |
|--------------------------|------------------|---------------------------|
| ITEM                     | Standard Number  | Descriptions              |
| 1                        | GB/T 1220 (1992) | Stainless steel bars      |
| 2                        | GB/T 1221 (1992) | Heat-resisting steel bars |
| 3                        | GB/T 4356 (2002) | Stainless steel wire rods |

| 1Cr13Mo Chemical composition(mass fraction)(wt.%) |    |         |    |    |    |         |    |    |       |
|---|----|---------|----|----|----|---------|----|----|-------|
| Chemical  |    | Min.(%) |    |    |    | Max.(%) |    |    |       |
| C   |    | 0.08    |    |    |    | 0.18    |    |    |       |
| Si  |    |         |    |    |    | 0.60    |    |    |       |
| Mn  |    |         |    |    |    | 1.00    |    |    |       |
| P   |    |         |    |    |    | 0.035   |    |    |       |
| S   |    |         |    |    |    | 0.030   |    |    |       |
| Ni  |    |         |    |    |    | 0.60    |    |    |       |
| Cr  |    | 11.50   |    |    |    | 14.00   |    |    |       |
| Mo  |    | 0.30    |    |    |    | 0.60    |    |    |       |
| C   | Si | Mn      | P  | S  | Cr | Ni      | Mo | V  | Ta    |
|   |    |         |    |    |    |         |    |    |       |
| W   | N  | Cu      | Co | Pb | B  | Nb      | Al | Ti | Other |
|   |    |         |    |    |    |         |    |    |       |

### 1Cr13Mo

| 1Cr13Mo 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      | -                   |

| 1Cr13Mo 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      | -                        |

| 1Cr13Mo Heat Treatment Regime |           |           |             |       |
|-------------------------------|-----------|-----------|-------------|-------|
| Annealing                     | Quenching | Tempering | Normalizing | Q & T |
| √                             | √         | √         | √           | √     |

| 1Cr13Mo 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 Specialsteel the specifications follows:**