

This page is mainly introduced the ISO H15 Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of ISO H15, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

## Datasheet for Steel Grades Specialsteel ISO H15

| ISO H15 Standard Number: |                 |                                                                                                                           |
|--------------------------|-----------------|---------------------------------------------------------------------------------------------------------------------------|
| ITEM                     | Standard Number | Descriptions                                                                                                              |
| 1                        | ISO 4955 (2005) | Heat-resistant steels                                                                                                     |
| 2                        | ISO 9327-5      | Steel forgings and rolled or forged bars for pressure purposes - Technical delivery conditions - Part 5: Stainless steels |

| ISO H15 Chemical composition(mass fraction)(wt.%) |    |    |    |         |    |    |         |    |       |
|---------------------------------------------------|----|----|----|---------|----|----|---------|----|-------|
| Chemical                                          |    |    |    | Min.(%) |    |    | Max.(%) |    |       |
| C                                                 |    |    |    |         |    |    | 0.08    |    |       |
| Si                                                |    |    |    |         |    |    | 1.50    |    |       |
| Mn                                                |    |    |    |         |    |    | 2.00    |    |       |
| P                                                 |    |    |    |         |    |    | 0.045   |    |       |
| S                                                 |    |    |    |         |    |    | 0.030   |    |       |
| Cr                                                |    |    |    | 24.00   |    |    | 26.00   |    |       |
| Ni                                                |    |    |    | 19.00   |    |    | 22.00   |    |       |
| C                                                 | Si | Mn | P  | S       | Cr | Ni | Mo      | V  | Ta    |
|                                                   |    |    |    |         |    |    |         |    |       |
| W                                                 | N  | Cu | Co | Pb      | B  | Nb | Al      | Ti | Other |
|                                                   |    |    |    |         |    |    |         |    |       |

Steel forgings and rolled or forged bars for pressure purposes - Technical delivery conditions -

## Part 5: Stainless steels

| ISO H15 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      | -                        |

| ISO H15 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      | -                        |

| ISO H15 Heat Treatment Regime |           |           |             |       |
|-------------------------------|-----------|-----------|-------------|-------|
| Annealing                     | Quenching | Tempering | Normalizing | Q & T |
| √                             | √         | √         | √           | √     |

| ISO H15 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, | Φ8-1200mm*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:**