

This page is mainly introduced the 15Mn chemical information,mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of 15Mn,such as it is commonly used in bars, sheet,plates, steel coils, steel pipes,forged and other materials application.

## **Data Table for Grades Special Alloy 15Mn**

| 15Mn Standard Number: |                 |              |  |
|-----------------------|-----------------|--------------|--|
| ITEM                  | Standard Number | Descriptions |  |

| 15Mn Chemical composition(mass fraction)(wt.%) |         |         |
|--|---------|---------|
| Chemical                                       | Min.(%) | Max.(%) |

| 15Mn 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      | -           |  |

| 15Mn 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      | -           |  |

| 15Mn Heat Treatment Regime |           |           |             |       |
|----------------------------|-----------|-----------|-------------|-------|
| Annealing                  | Quenching | Tempering | Normalizing | Q & T |
| $\checkmark$               | √         | √         | √           | √     |

## 15Mn Chemical information, Mechanical properties

Physical properties, Mechanical properties, Heat treatment, and Micro structure

| 15Mn 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          | Φ8-1200mm*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: