

This page is mainly introduced the ML15 Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of ML15, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

## Datasheet for Steel Grades Structure Steel ML15

### ML15 Standard Number:

| ITEM | Standard Number | Descriptions |
|------|-----------------|--------------|
|------|-----------------|--------------|

### ML15 Chemical composition (mass fraction) (wt.%)

| Chemical  |           |           | Min.(%) |       |    |    | Max.(%) |    |       |
|-----------|-----------|-----------|---------|-------|----|----|---------|----|-------|
| C         | Si        | Mn        | P       | S     | Cr | Ni | Mo      | V  | Ta    |
| 0.13-0.18 | 0.15-0.35 | 0.30-0.60 | 0.035   | 0.035 | —  |    |         |    |       |
| W         | N         | Cu        | Co      | Pb    | B  | Nb | Al      | Ti | Other |
|           |           |           |         |       | —  |    | —       |    |       |

## ML15

### ML15 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      | -                        |

### ML15 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      | -                |

### ML15 Heat Treatment Regime

| Annealing | Quenching | Tempering | Normalizing | Q & T |
|-----------|-----------|-----------|-------------|-------|
| √         | √         | √         | √           | √     |

### ML15 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 Structure Steel the specifications follows:**