## Steel Grade S650MC Chemical information, Mechanical properties

Physical properties, Mechanical properties, Heat treatment, and Micro structure, E-mail:sales@steel-grades.com

This page is mainly introduced the S650MC Datasheet, including chemical information,mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of S650MC, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

## **Datasheet for Steel Grades Carbon Steel S650MC**

| S650MC Standard Number: |          |               |               |              |
|-------------------------|----------|---------------|---------------|--------------|
| Area                    | Standard | Standard Code | Standard Year | Descriptions |
|                         |          |               |               |              |

| S650MC Chemical composition(mass fraction)(wt.%) |         |         |             |
|--|---------|---------|-------------|
| Chemical   | Min.(%) | Max.(%) | Similar (%) |

| S650MC 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      | -           |  |  |

| S650MC 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      | -           |  |  |



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| S650MC Heat Treatment Regime |           |           |             |       |
|------------------------------|-----------|-----------|-------------|-------|
| Annealing                    | Quenching | Tempering | Normalizing | Q & T |
| $\checkmark$                 | √         | V         | V           | √     |

| S650MC 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          | Ф8-1200mm*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 Carbon Steel the specifications follows: