

This page is mainly introduced the SWRCH43K Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of SWRCH43K, 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 SWRCH43K

| SWRCH43K Standard Number: |          |               |               |              |
|---------------------------|----------|---------------|---------------|--------------|
| Area                      | Standard | Standard Code | Standard Year | Descriptions |
|                           |          |               |               |              |

| SWRCH43K Chemical composition (mass fraction) (wt.%) |         |         |             |
|--|---------|---------|-------------|
| Chemical   | Min.(%) | Max.(%) | Similar (%) |
|  |         |         |             |

| SWRCH43K 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      | -                        |

| SWRCH43K 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      | -                        |

## SWRCH43K Heat Treatment Regime

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

## SWRCH43K 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 Carbon Steel the specifications follows:**