

This page is mainly introduced the SA-814 S30940 chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of SA-814 S30940, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

## Data Table for Grades Stainless Steels SA-814 S30940

| SA-814 S30940 Standard Number: |                 |                                                                      |
|--------------------------------|-----------------|----------------------------------------------------------------------|
| ITEM                           | Standard Number | Descriptions                                                         |
| 1                              | SA-814/SA-814M  | Specification for Cold-Worked Welded Austenitic Stainless Steel Pipe |

| SA-814 S30940 Chemical composition(mass fraction)(wt.%) |         |         |
|---------------------------------------------------------|---------|---------|
| Chemical                                                | Min.(%) | Max.(%) |
| C                                                       |         | 0.08    |
| Mn                                                      |         | 2.00    |
| Si                                                      |         | 1.00    |
| P                                                       |         | 0.045   |
| S                                                       |         | 0.03    |
| Cr                                                      | 22.00   | 24.00   |
| Ni                                                      | 12.00   | 15.00   |
| Mo                                                      |         |         |

| SA-814 S30940 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      | -                        |

| SA-814 S30940 Mechanical Properties |         |                 |
|-------------------------------------|---------|-----------------|
| Tensile strength                    | 231-231 | $\sigma_b$ /MPa |
|                                     |         |                 |

|                |         |                                  |
|----------------|---------|----------------------------------|
| Yield Strength | 154     | $\sigma_{0.2} \geq / \text{MPa}$ |
| Elongation     | 56      | $\delta 5 \geq (\%)$             |
| $\psi$         | -       | $\psi \geq (\%)$                 |
| Akv            | -       | $Akv \geq / \text{J}$            |
| HBS            | 235-268 | -                                |
| HRC            | 30      | -                                |

### SA-814 S30940 Heat Treatment Regime

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

### SA-814 S30940 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          | $\Phi 8$ -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 Stainless Steels the specifications follows:**