

This page is mainly introduced the SA-240 S38100 chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of SA-240 S38100, 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-240 S38100

| SA-240 S38100 Standard Number: |                 |                                                                                                                                          |
|--------------------------------|-----------------|------------------------------------------------------------------------------------------------------------------------------------------|
| ITEM                           | Standard Number | Descriptions                                                                                                                             |
| 1                              | SA-240/SA-240M  | Specification for Chromium and Chromium-Nickel Stainless Steel Plate, Sheet, and Strip for Pressure Vessels and for General Applications |

| SA-240 S38100 Chemical composition(mass fraction)(wt.%) |         |         |
|---------------------------------------------------------|---------|---------|
| Chemical                                                | Min.(%) | Max.(%) |
| C                                                       |         | 0.08    |
| Mn                                                      |         | 2.00    |
| Si                                                      | 1.50    | 2.50    |
| P                                                       |         | 0.045   |
| S                                                       |         | 0.03    |
| Cr                                                      | 17.00   | 19.00   |
| Ni                                                      | 17.50   | 18.50   |

| SA-240 S38100 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-240 S38100 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      | -                    |

### SA-240 S38100 Heat Treatment Regime

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

### SA-240 S38100 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:**