

**This page is mainly introduced the SA-240 S43932 Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of SA-240 S43932, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.**

## Datasheet for Steel Grades Specialsteel SA-240 S43932

| SA-240 S43932 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 S43932 Chemical composition (mass fraction) (wt.%) |    |         |    |    |         |    |    |    |       |
|---|----|---------|----|----|---------|----|----|----|-------|
| Chemical  |    | Min.(%) |    |    | Max.(%) |    |    |    |       |
| C   |    |         |    |    | 0.03    |    |    |    |       |
| Mn  |    |         |    |    | 1.00    |    |    |    |       |
| Si  |    |         |    |    | 1.00    |    |    |    |       |
| P   |    |         |    |    | 0.04    |    |    |    |       |
| S   |    |         |    |    | 0.03    |    |    |    |       |
| Cr  |    | 17.00   |    |    | 19.00   |    |    |    |       |
| Ni  |    |         |    |    | 0.50    |    |    |    |       |
| Mo  |    |         |    |    |         |    |    |    |       |
| Al  |    |         |    |    | 0.15    |    |    |    |       |
| N   |    |         |    |    | 0.03    |    |    |    |       |
| C   | Si | Mn      | P  | S  | Cr      | Ni | Mo | V  | Ta    |
| W   | N  | Cu      | Co | Pb | B       | Nb | Al | Ti | Other |
|   |    |         |    |    |         |    |    |    |       |

Specification for Chromium and Chromium-Nickel Stainless Steel Plate, Sheet, and Strip for Pressure Vessels and for General Applications

### SA-240 S43932 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 S43932 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 S43932 Heat Treatment Regime

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

### SA-240 S43932 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                |

