

This page is mainly introduced the SA-479 Type 304L Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of SA-479 Type 304L, 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-479 Type 304L

### SA-479 Type 304L Standard Number:

| ITEM | Standard Number | Descriptions  |
|------|-----------------|---|
| 1    | SA-479/SA-479M  | Specification for Stainless Steel Bars and Shapes for Use in Boilers and Other Pressure Vessels |

### SA-479 Type 304L Chemical composition(mass fraction)(wt.%)

| Chemical |    | Min.(%) |    |    |    |    | Max.(%) |    |       |  |
|----------|----|---------|----|----|----|----|---------|----|-------|--|
| C        |    |         |    |    |    |    | 0.030   |    |       |  |
| Si       |    |         |    |    |    |    | 1.00    |    |       |  |
| Mn       |    |         |    |    |    |    | 2.00    |    |       |  |
| P        |    |         |    |    |    |    | 0.045   |    |       |  |
| S        |    |         |    |    |    |    | 0.03    |    |       |  |
| Cr       |    | 18.00   |    |    |    |    | 20.00   |    |       |  |
| Ni       |    | 8.00    |    |    |    |    | 12.00   |    |       |  |
| C        | Si | Mn      | P  | S  | Cr | Ni | Mo      | V  | Ta    |  |
| W        | N  | Cu      | Co | Pb | B  | Nb | Al      | Ti | Other |  |
|          |    |         |    |    |    |    |         |    |       |  |

Specification for Stainless Steel Bars and Shapes for Use in Boilers and Other Pressure Vessels

### SA-479 Type 304L Physical Properties

|                  |         |                          |
|------------------|---------|--------------------------|
| Tensile strength | 115-234 | $\sigma_b$ /MPa          |
| Yield Strength   | 23      | $\sigma_{0.2} \geq$ /MPa |
|                  |         |                          |

|            |         |          |
|------------|---------|----------|
| Elongation | 65      | δ5 ≥ (%) |
| ψ          | -       | ψ ≥ (%)  |
| Akv        | -       | Akv ≥ J  |
| HBS        | 123-321 | -        |
| HRC        | 30      | -        |

### SA-479 Type 304L 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      | -           |

### SA-479 Type 304L Heat Treatment Regime

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

### SA-479 Type 304L 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 Specialsteel the specifications follows:**