

This page is mainly introduced the 1.4335 Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of 1.4335, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

Datasheet for Steel Grades Specialsteel 1.4335

| 1.4335 Standard Number: | | |
|-------------------------|-----------------------|--|
| ITEM | Standard Number | Descriptions |
| 1 | DIN EN 10028-7 | Flat products made of steels for pressure purposes - Part 7: Stainless steels |
| 2 | DIN EN 10088-1 | Stainless steels - Part 1: List of stainless steels |
| 3 | DIN EN 10088-2 | Stainless steels - Part 2: Technical delivery conditions for sheet/plate and strip of corrosion resisting steels for general purposes |
| 4 | DIN EN 10088-3 | Stainless steels - Part 3: Technical delivery conditions for semi-finished products, bars, rods, wire, sections and bright products of corrosion resisting steels for general purposes |
| 5 | DIN EN 10088-4 | Stainless steels - Part 4: Technical delivery conditions for sheet/plate and strip of corrosion resisting steels for construction purposes |
| 6 | DIN EN 10216-5 (2004) | Seamless steel tubes for pressure purposes - Technical delivery conditions - Part 5: Stainless steel tubes |
| 7 | DIN EN 10253-3 | Butt-welding pipe fittings - Part 3: Wrought austenitic and austenitic-ferritic (duplex) stainless steels without specific inspection requirements |
| 8 | DIN EN 10253-4 | Butt-welding pipe fittings - Part 4: Wrought austenitic and austenitic-ferritic (duplex) stainless steels with specific inspection requirements |
| 9 | DIN EN 10297-2 (2005) | Seamless circular steel tubes for mechanical and general engineering purposes - Technical delivery conditions - Part 2: Stainless steel |
| 10 | SEW 400 | Stainless steels for rolled and forged products |

| 1.4335 Chemical composition(mass fraction)(wt.%) | | |
|--|---------|---------|
| Chemical | Min.(%) | Max.(%) |
| C | | 0.05 |
| Si | | 0.70 |
| Mn | | 1.50 |
| P | | 0.040 |
| S | | 0.015 |
| Cr | 12.0 | 14.0 |
| Mo | 0.30 | 0.70 |
| Ni | 3.50 | 4.50 |

| | | | | | | | | | | |
|---|----|----|----|----|----|----|----|-------|-------|--|
| N | | | | | | | | 0.020 | | |
| C | Si | Mn | P | S | Cr | Ni | Mo | V | Ta | |
| | | | | | | | | | | |
| W | N | Cu | Co | Pb | B | Nb | Al | Ti | Other | |
| | | | | | | | | | | |

Flat products made of steels for pressure purposes - Part 7: Stainless steels

1.4335 Physical Properties

| | | |
|------------------|---------|--------------------------|
| Tensile strength | 115-234 | σ_b /MPa |
| Yield Strength | 23 | $\sigma_{0.2} \geq$ /MPa |
| Elongation | 65 | $\delta_5 \geq$ (%) |
| ψ | - | $\psi \geq$ (%) |
| Akv | - | Akv \geq /J |
| HBS | 123-321 | - |
| HRC | 30 | - |

1.4335 Mechanical Properties

| | | |
|------------------|---------|--------------------------|
| Tensile strength | 231-231 | σ_b /MPa |
| Yield Strength | 154 | $\sigma_{0.2} \geq$ /MPa |
| Elongation | 56 | $\delta_5 \geq$ (%) |
| ψ | - | $\psi \geq$ (%) |
| Akv | - | Akv \geq /J |
| HBS | 235-268 | - |
| HRC | 30 | - |

1.4335 Heat Treatment Regime

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

1.4335 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: