TECHNICAL DATA SHEET

302 Stainless Steel / SUS302

General-Purpose Austenitic Stainless Steel

VTECH MATERIALS LIBRARY

Document Control

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Specification	ASTM A240 Type 302 / JIS SUS302	**Product Form / UNS**	Sheet, strip, wire, and bar / UNS S30200

Engineering use note: Starter-library values are intended for engineering screening and template standardization. Verify against the latest governing specification, drawing, PO, and MTR before production release.

1. General Description

302 is a general-purpose austenitic stainless steel used in the VTECH library for quick material screening and template standardization.

2. Chemical Composition (wt%)

Property	Value
Chromium (Cr)	17.0-19.0
Nickel (Ni)	8.0-10.0
Carbon (C)	<= 0.15
Manganese (Mn)	<= 2.0
Silicon (Si)	<= 1.0
Phosphorus (P)	<= 0.045
Sulfur (S)	<= 0.030
Nitrogen (N)	<= 0.10

3. Mechanical Properties

Property	Value
Condition	Annealed typical wrought
Ultimate tensile strength	>= 515 MPa
Yield strength (0.2% offset)	>= 205 MPa
Elongation	>= 40%
Hardness	<= 92 HRB

4. Physical Properties

Property	Value
Density	7.93 g/cm3
Elastic modulus	193 GPa
Thermal conductivity	~16 W/m-K
Melting range	~1400-1450 C

5. Heat Treatment / Processing

Not hardenable by heat treatment. Can be strengthened substantially by cold work.

6. Corrosion / Environmental Performance

General-purpose corrosion resistance similar to 304-family alloys in atmospheric and many mildly corrosive environments.

7. Key Characteristics

- Classic 18-8 stainless chemistry
- Good formability and fabrication behavior
- Common spring and wire grade in cold-worked tempers

8. Typical Applications

- Wire products
- Fasteners
- Springs
- General fabricated parts

9. Standards / Cross-References

ASTM A240 Type 302

JIS SUS302

UNS S30200