



TECHNICAL DATA SHEET

201 Stainless Steel / SUS201

Chromium-Manganese-Nickel Austenitic Stainless Steel

VTECH
MATERIALS
LIBRARY

Document Control

Document No.	TDS-SS-201-A240	Revision	A
Issue Date	2026-04-08	Owner	Engineering
Specification	ASTM A240 Type 201 / JIS SUS201	Product Form / UNS	Sheet, plate, and coil / UNS S20100

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

201 is a chromium-manganese-nickel austenitic stainless steel used in the VTECH library for quick material screening and template standardization.

2. Chemical Composition (wt%)

Property	Value
Chromium (Cr)	16.0-18.0
Nickel (Ni)	3.5-5.5
Manganese (Mn)	5.5-7.5
Carbon (C)	<= 0.15
Nitrogen (N)	<= 0.25
Silicon (Si)	<= 1.0
Phosphorus (P)	<= 0.060
Sulfur (S)	<= 0.030

3. Mechanical Properties

Property	Value
Condition	Annealed typical wrought
Ultimate tensile strength	>= 515 MPa
Yield strength (0.2% offset)	>= 275 MPa
Elongation	>= 40%
Hardness	<= 95 HRB

4. Physical Properties

Property	Value
Density	7.86 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. Strength is normally increased by cold work.

6. Corrosion / Environmental Performance

Good atmospheric and mild aqueous corrosion resistance for indoor and light-duty service. Typically lower corrosion resistance than 304, especially in chloride environments.

7. Key Characteristics

- Lower-nickel economical austenitic grade
- Good formability in sheet products
- Non-magnetic in annealed condition, may become magnetic after cold work

8. Typical Applications

- Appliance panels
- Architectural trim
- Food-service equipment
- Transportation and fabricated sheet components

9. Standards / Cross-References

ASTM A240 Type 201

JIS SUS201

UNS S20100