

General

Property	Standard	Unit	Value
Specific mass	-	g/cm ³	7.85
Carbon content (C)	EN 10149-2	%	≤ 0.20
Manganese (Mn)	EN 10149-2	%	≤ 1.50
Phosphorus (P)	EN 10149-2	%	≤ 0.025
Sulfur (S)	EN 10149-2	%	≤ 0.025

Mechanical

Property	Standard	Unit	Value
Tensile strength	EN 10149-2	MPa	430 - 550
Elongation at break	EN 10149-2	%	≥ 19
Yield strength (0.2% offset)	EN 10149-2	MPa	≥ 355
Hardness (Brinell)	-	HB	140 - 180

Thermal

Property	Standard	Unit	Value
Thermal conductivity	-	W/m·°C	~ 45
Specific heat capacity	-	J/kg·°C	~ 460
Linear expansion coefficient	-	10 ⁻⁶ /°C	~ 12
Long-term operating temperature (unloaded)	-	°C	-40 / 350
Maximum short-term operating temperature	-	°C	450

Electrical

Property	Standard	Unit	Value
Electrical resistivity	-	Ω·m	~ 1.5 × 10 ⁻⁷

Temperature Range

Temperature	Unit	Value
Minimum operating temperature	°C	-40
Maximum operating temperature	°C	+450

Additional Properties

Property	Behavior
Weldability	Excellent
Forgeability	Good
Corrosion resistance	Excellent