

CARBON STEEL

S355



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Carbon Steel S355 is a versatile structural steel known for its high strength, good weldability and suitability for a wide range of applications in construction, engineering, manufacturing, and other industries. Its combination of mechanical properties and ease of fabrication make it a preferred choice for structural components where durability and reliability are paramount. It is supplied with certification according to EN 10204.

KEY FEATURES

- High strength and ductility
- Good weldability
- Excellent machinability
- Can be welded using standard techniques
- Suitable for various cutting techniques

CHEMICAL PROPERTIES

Manganese (Mn)	Copper (Cu)	Silicone (Si)	Carbon (C)	Phosphorus (P)	Sulphur (S)	Nitrogen (N)
1.6%	0.55%	0.55%	0.24%	0.045%	0.045%	0.012%

MECHANICAL PROPERTIES

Tensile strength (N/mm ²)	470-630
Yield strength (N/mm ²)	355
Elongation (% in 4D)	20
Hardness - Rockwell (HRB) max	65-80
Hardness - Brinell (HB) max	140-180

PHYSICAL PROPERTIES

Density (kg/m ³)	7850	
Modulus of elasticity (Gpa)	210	
Mean coefficient of thermal expansion	0-100°C (µm/m/°C)	12.0
	0-350°C (µm/m/°C)	14.1
	0-538°C (µm/m/°C)	15.2
Thermal conductivity	at 100°C (W/m.K)	46.0
	at 500°C (W/m.K)	33.0
Specific Heat 0-100°C (J/kg.K)	490	
Electrical resistivity (nΩ.m)	150	
Melting point (°C)	1440	

MARKET SECTORS



Engineering & Machinery

Frames, supports, base plates, gussets



Construction Applications

Beams, columns and girders in buildings and bridges



Oil & Gas Industry

Platforms, pipelines, structures for offshore and onshore



Engineering & Infrastructure

Components for highways, tunnels, engineering structures



Marine Equipment

Plates and sections for hull structures, components for decks



Power Generation

Frameworks and support structures for wind turbines