



IS 2062:1999 Steel Grades â?? Complete Comparison Guide

Description

the three grades (A, B, C) and the street of IS 2062:1999 specifies requirements for hot-rolled structural steel used in general engineering and construction. This guide compares the three grades (A, B, C) and their variants:

- Chemical composition limits
- Mechanical properties
- Impact test requirements
- Recommended applications

Steelmet Industries supplies all IS 2062:1999 grades as:

- â? Steel plates (3-100mm thickness)
- a? Structural sections (beams, channels, angles)
- â? Round/square/flat bars

Grade Classification System

Grade Designation		Key Characteristics	End Marking Color
Α	Fe 410W A	Basic structural grade, no impact test	Green
В	Fe 410W B	Improved purity, room temp impact test Grey	
С	Fe 410W C	Low-temp applications (-20°C impact)	Orange

Copper-bearing variants (e.g., Fe 410Cu-WA) are marked with additional white band.



Key Comparison Tables

1. Chemical Composition

Element Grade A Grade B Grade C

C (max)	0.23	0.22	0.20
Mn (max)	1.50	1.50	1.50
S (max)	0.050	0.045	0.040
P (max)	0.050	0.045	0.040
CE (max)	0.42	0.41	0.39

Note: Grade C has strictest impurity controls

2. Mechanical Properties

Property	Grade A	Grade B Grade C			
Tensile (MPa)	41000	410 410 C			
Yield (MPa)	250	250 (1) 250 (Ship)			
Elongation (%)	23	23 Steels Dars			
Impact Test	Not required	Grade B Grade C 410 410 S - B 150 B			
Applications Guide					

Applications Guide

Grade	Best For	Not Recommended For
Α	Non-critical structures, roofing	Low-temperature/welded critical parts
В	Bridges, general construction	Sub-zero environments
С	Offshore platforms, cryogenic	Cost-sensitive projects

Special Notes:

- Grade C plates >12mm must be normalized/controlled cooled
- Copper-bearing grades (Cu suffix) offer better corrosion resistance

Why Choose Steelmet Industries?

We provide:

â?? All three grades (A/B/C) with MTC certification a?? Custom processing (cutting, drilling, bending)



â?? Just-in-time delivery across India

a?? Technical support for grade selection

Request samples of any IS 2062:1999 grade for testing!

FAQ Section

Q: Can Grade A be used for welded structures?

A: Yes, but Grade C is recommended for critical welds due to its guaranteed -20°C impact toughness.

Q: Difference between Fe 410W B and Fe 410Cu-WB?

A: The Cu variant contains 0.20-0.35% copper for improved atmospheric corrosion resistance.

Conclusion

s all grades with proper conendations.

Steels, Stainless Steels Understanding IS 2062:1999 grade differences ensures optimal material selection for structural integrity. Steelmet Industries stocks all grades with proper color-coding as per standard â?? contact us today for project-specific recommendations.

Categorie

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