

# IS 10748 Grade 6 -Technical Datasheet

## 1. Chemical & Mechanical Properties

Property	Value
C (max %)	0.25
Mn (max %)	1.50
P (max %)	0.040
S (max %)	0.040
C <sub>es</sub> (max)	0.45
Tensile Strength $\sigma_u$ (MPa min)	490
Yield Strength $\sigma_y$ (MPa min)	355
Elongation A <sub>5</sub> (%)	15
Bend Test (ID)	3t

## 2. Equivalent / Alternative Grades

Grade	Standard	C max %	Mn max / range %	P max %	S max %	YS / TS / El%
EN 10025-2 S355JR	EN	0.24	1.60	0.035	0.035	YS 355; TS 470-630; El 22
ASTM A572 Gr 50	ASTM	0.23	1.35	0.030	0.030	YS 345; TS 450; El 18

## 3. Common Applications

- High-strength ERW hollow sections
- Structural members requiring YS  $\geq$  355 MPa (e.g., solar tracker tubes)

## 4. Standard Conformance

Conforms to IS 10748 : 2004 (Second Revision) including Amendment 1 : 2012.

## 5. Disclaimer

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