

ISC590YL – IS 513 Part 2 (2016) – Dual-Phase YL- Technical Datasheet

1. Chemical & Mechanical Properties

Property	Value
C (%)	≤0.10
Mn (%)	≤2.00
Si (%)	≤0.50
P (%)	≤0.020
S (%)	≤0.020
Al (%)	0.02–0.06
Ti (%)	≤0.15
Nb (%)	≤0.09
Yield Strength YS (MPa min)	590
Tensile Strength UTS (MPa min)	650
Elongation A80 (%) min	18

2. Equivalent / Alternative Grades

Grade	Standard	C%	Mn %	Si%	P%	S%	Al%	Ti%	Nb %	YS (MPa)	UTS (MPa)
ASTM Gr 590	ASTM A1008	≤0.10	≤2.00	≤0.50	≤0.020	≤0.020	0.02 – 0.06	≤0.15	≤0.09	590	650
EN Gr 590	EN 10338	≤0.10	≤2.00	≤0.50	≤0.020	≤0.020	0.02 – 0.06	≤0.15	≤0.09	590	670
JFS Gr 590	JFS A2001	≤0.10	≤2.00	≤0.50	≤0.020	≤0.020	0.02 – 0.06	≤0.15	≤0.09	590	680

3. Common Applications

- Automotive safety members
- Energy absorbing components
- Crash structures

4. Standard Conformance

Cold-reduced sheet/strip conforming to IS 513 Part 2 (2016).

5. Disclaimer

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