

# ISC590LA – IS 513 Part 2 (2016) – Dual-Phase- Technical Datasheet

## 1. Chemical & Mechanical Properties

| Property                       | Value       |
|--------------------------------|-------------|
| C (%)                          | ≤ 0.12      |
| Mn (%)                         | ≤ 1.60      |
| 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                         | Stand<br>ard  | C<br>%     | Mn<br>%    | Si<br>%    | P%          | S%          | Al<br>%                | Ti<br>%    | Nb<br>%    | YS (MPa<br>) | UTS (MPa) |
|-------------------------------|---------------|------------|------------|------------|-------------|-------------|------------------------|------------|------------|--------------|-----------|
| ASTM A1008 HS<br>LAS-F Gr 590 | ASTM<br>A1008 | ≤ 0<br>.12 | ≤ 1<br>.60 | ≤ 0<br>.50 | ≤ 0.<br>020 | ≤ 0.<br>020 | 0.0<br>2 –<br>0.<br>06 | ≤ 0<br>.15 | ≤ 0<br>.09 | 590          | 650       |
| EN 10268 H590<br>LA           | EN 10<br>268  | ≤ 0<br>.12 | ≤ 1<br>.60 | ≤ 0<br>.50 | ≤ 0.<br>020 | ≤ 0.<br>020 | 0.0<br>2 –<br>0.<br>06 | ≤ 0<br>.15 | ≤ 0<br>.09 | 590          | 670       |
| JIS JSC590                    | JFS A2<br>001 | ≤ 0<br>.12 | ≤ 1<br>.60 | ≤ 0<br>.50 | ≤ 0.<br>020 | ≤ 0.<br>020 | 0.0<br>2 –<br>0.<br>06 | ≤ 0<br>.15 | ≤ 0<br>.09 | 590          | 680       |

## 3. Common Applications

- Automotive structural members (rails, cross-members)
- Chassis and suspension components
- Press-formed high-strength panels

#### 4. Standard Conformance

Conforms to IS 513 Part 2 (2016) – HSLA family.

#### 5. Disclaimer

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