

Data Sheet

MILD STEEL PLATE G250

NZ STANDARD

- AS/NZS 3678:250

INTERNATIONAL STANDARDS

- JIS G3101 - SS400
- JIS G3101 - SS400A
- ASTM A36
- REN 10025-2-S235JR

PRODUCT DESCRIPTION

A medium strength structural steel product with nominal yield strength of 250MPa.

SUPPLY CONDITIONS

- Thickness Range 5mm—200mm
- Tolerances AS1365 or equivalent
- Ultrasonic Inspection AS1710 available on request.
- Flatness Class A

TYPICAL USES

- Structural members
- General fabrication
- High-rise buildings
- Bridges
- Storage tanks

Data sheet

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| CHEMICAL COMPOSITION | | | | | |
|----------------------|--------------------|---------------------------|-------------|--------------|---------------|
| Element | Guaranteed Maximum | Typical %/ Thickness (mm) | | | |
| | | 5 < t < 32 | 32 < t < 50 | 50 < t < 115 | 115 < t < 150 |
| Carbon | 0.22 | 0.155 | 0.14 | 0.15 | 0.16 |
| Silicon | 0.55 | 0.15 | 0.20 | 0.30 | 0.35 |
| Manganese | 1.70 | 0.65 | 1.10 | 1.20 | 1.35 |
| Phosphorus | 0.040 | 0.020 | 0.020 | 0.020 | 0.020 |
| Sulphur | 0.030 | 0.010 | 0.010 | 0.010 | 0.003 |
| Aluminium | 0.100 | 0.025 | 0.035 | 0.025 | 0.035 |
| Titanium | 0.040 | - | 0.018 | 0.018 | 0.018 |
| CEQ (IIW) | 0.43 | 0.27 | 0.32 | 0.36 | 0.35 |

| MECHANICAL PROPERTIES | | | | | | | |
|---------------------------------|------------------------|----------------------|------------|-------------|-------------|--------------|---------------|
| Typical Properties (Transverse) | | Thickness Range (mm) | | | | | |
| | | 5 < t ≤ 8.0 | 8 < t ≤ 12 | 12 < t ≤ 50 | 50 < t ≤ 80 | 80 < t ≤ 115 | 115 < t ≤ 150 |
| Guaranteed Min. | Yield Strength (MPa) | 280 | 280 | 250 | 240 | 230 | 230 |
| | Tensile Strength (MPa) | 410 | 410 | 410 | 410 | 410 | 410 |
| Typical | Yield Strength (MPa) | 290-480 | 280-400 | 280-370 | 240-320 | 230-310 | 230-310 |
| | Tensile Strength (MPa) | 420-540 | 420-500 | 420-500 | 430-490 | 430-480 | 430-480 |

| WELDABILITY | | | | |
|-------------|---|-------------------------------|-------------|--------------|
| | | Typical Group/ Thickness (mm) | | |
| | | 5 < t < 32 | 32 < t < 50 | 50 < t < 150 |
| Group 4 | 4 | 1 | 2 | 3 |

| FORMABILITY (recommended min inside radii) | | |
|--|------------|------------|
| t < 6mm | Long 1.5T | Trans 1.0T |
| 6mm < t ≤ 10mm | Long 2.25T | Trans 1.5T |
| 10mm < t ≤ 20mm | Long 3.0T | Trans 2.0T |
| 20mm < t ≤ 50mm | Long 6.0T | Trans 4.0T |
| t ≥ 50mm | Hot form | |

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