



# HA 3

## Hot-Rolled - Formable

Revision: 31/1/2012

### GENERAL DESCRIPTION

Hot Rolled HA 3 steel is a commercial grade steel with an increased guaranteed minimum elongation suitable for moderate pressing and drawing operations.

### APPLICATIONS

- Automotive parts
- Brackets
- Furniture

### STANDARDS

- AS/NZS 1594
- AS/NZS 1365

CHEMICAL COMPOSITION	TYPICAL (wt %)	GUARANTEED MAXIMUM (wt %) <sup>[1]</sup>
Carbon (C)	0.03	0.08
Silicon (Si)	0.007	0.03
Manganese (Mn)	0.18	0.40
Sulphur (S)	0.016	0.025
Phosphorus (P)	0.011	0.030

<sup>[1]</sup> Values shown refer to relevant Australian/ New Zealand standard unless tighter internal limits are applied.

MECHANICAL PROPERTIES	TYPICAL		GUARANTEED MINIMUM	
	2.0 – 3.00mm	3.00 – 13.0mm	2.0 – 3.00mm	3.00 – 13.0mm
Yield strength, MPa	280	270	200	200
Tensile strength, MPa	360	350	300	300
Elongation, % on L <sub>0</sub> = 200mm	30	31	22	24

Material should be used promptly (within 6 months) to avoid the possibility of storage related corrosion and degradation.

Mechanical properties are guaranteed at ambient/room temperatures. Please consult technical representatives at New Zealand Steel for high/low temperature use.

DIMENSION CAPABILITIES	
THICKNESS (mm)	WIDTH (mm)
2.0 – 2.2	730 – 1290
2.2 – 2.5	730 – 1378
2.5 – 13.00	730 - 1540

Other dimensional combinations may be available by enquiry.

FABRICATING PERFORMANCE 1 = Limited 5 = Excellent	
Method	Rating
Drawing	4
Pressing	4
Bending	5
Roll-forming	5
Welding	5

AVAILABLE FORMS	
DRY	PICKLED & OILED
Mill edge coil	Coil
Coil – Plate	Coil - Plate

STANDARD PLATE SIZES
1220 x 2400
1520 x 3600

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