

# Hot Rolled Formable HA1S Steel

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Revision 0, August 2009

This literature supersedes all previous issues.

## GENERAL DESCRIPTION

HA1S Steel, Skinpassed, Hot-rolled low carbon steel suitable for simple forming, bending and welding operations.

## TYPICAL USES

Shelving, light structural members, tanks, distributor stock.

## APPLICABLE STANDARDS

AS/NZS 1594:2002  
AS/NZS 1365:1996

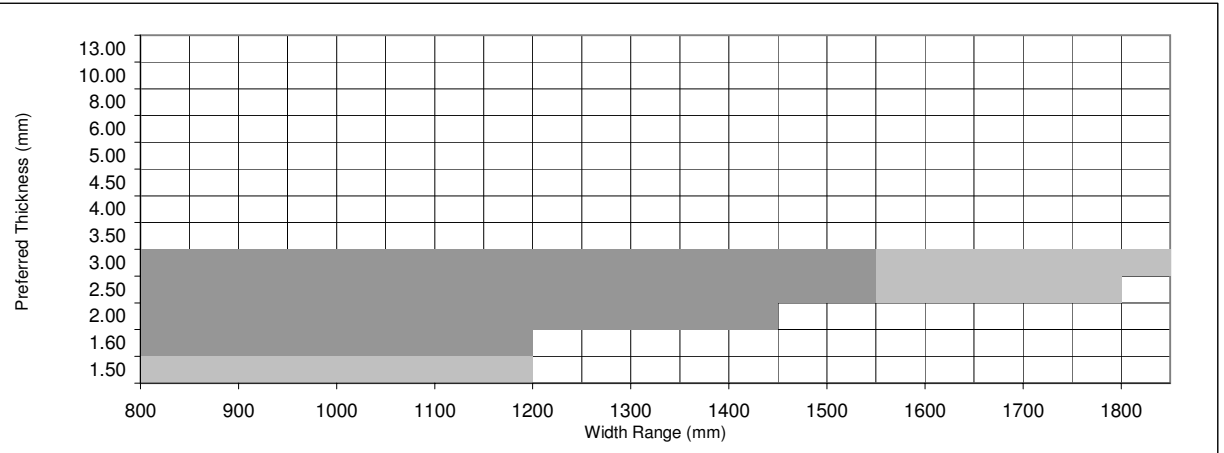
## PROPERTIES OF STEEL BASE

MECHANICAL PROPERTIES	GUARANTEED
Transverse Tensile	
Yield Strength (MPa)	-
-	-
Tensile Strength (MPa)	-
Elongation %	-
<= 3.0mm, 80mm GL	-
> 3.0mm, 80mm GL	-
>3.0mm, 200mm GL	-
180° Transverse Bend (L axis)	
<= 3.0 mm	1 t
> 3.0 mm	1 t
	-

CHEMICAL PROPERTIES	GUARANTEED %	TYPICAL %
	Maximum	<1.9mm
Carbon - C	0.13	0.04-0.07
Phosphorus - P	0.04	0.01-0.02
Manganese - Mn	0.50	0.20-0.30
Silicon - Si	0.03	0.005-0.010
Sulphur - S	0.03	0.01-0.02
Aluminium Tot' - Al	0.10	0.03-0.05
Titanium - Ti	0.04	-
Nb + V	0.03	0.003-0.006
Nitrogen - N	-	0.001-0.005
Nb + V + Ti	-	-
Niobium - Nb	-	-
Vanadium - V	-	-
Boron Total - B	-	-

Note: \* (Nb) - 0.010% max, (V) - 0.010% max

## DIMENSIONAL CAPABILITIES



Note: Widths in the range 50 to 865mm are available by negotiation only

Key	Available Black only	Available Pickled

These dimensions are a reflection of technical capability to produce. Supply conditions may be subject to dimensional restrictions and is subject to BlueScope Steel Sales and Marketing confirmation.

## NORMAL/OPTIONAL SUPPLY CONDITIONS

	Normal	Optional#
Surface Finish	As-Rolled Skin-passed	Pickled & Oiled Pickled Not Oiled
Edge Condition	Mill Edge	Trimmed Edge
Tolerance Class		
- Thickness	AT	-
- Width	AW	-
- Length	AL	-
- Flatness	AF	-
Oiling	Not Oiled	Oiled
Branding	Not Branded	-

# Optional supply conditions may be subject to dimensional restrictions

## FABRICATING PERFORMANCE

Method	Rating
Bending	4
Drawing	3*
Pressing	3*
Roll Forming	3
Welding	5
Painting (Pretreatment)	5
Galvanizing	5

\* Surface scale adversely affects performance of this product.  
Pickling is recommended.

Where: 1 = Limited to 5 = Excellent or NR = Not Recommended

Note: It is recommended that customers use product promptly to avoid the possibility of rusting during storage.  
Oiling improves corrosion resistance but oiled product should be used within three months.



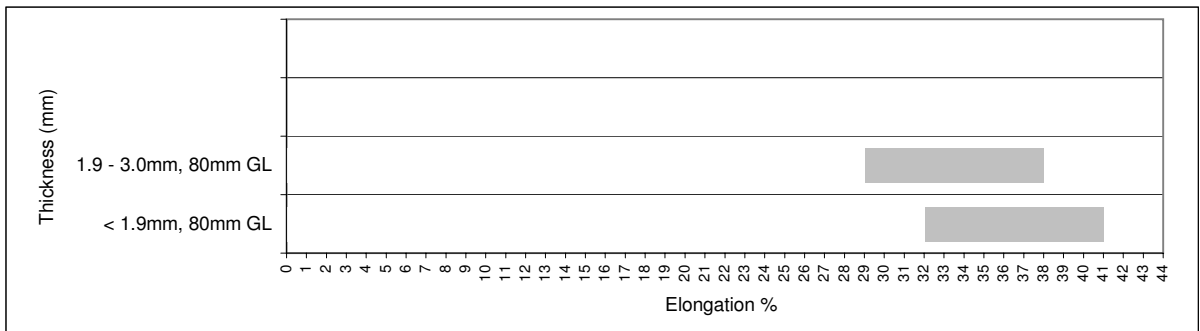
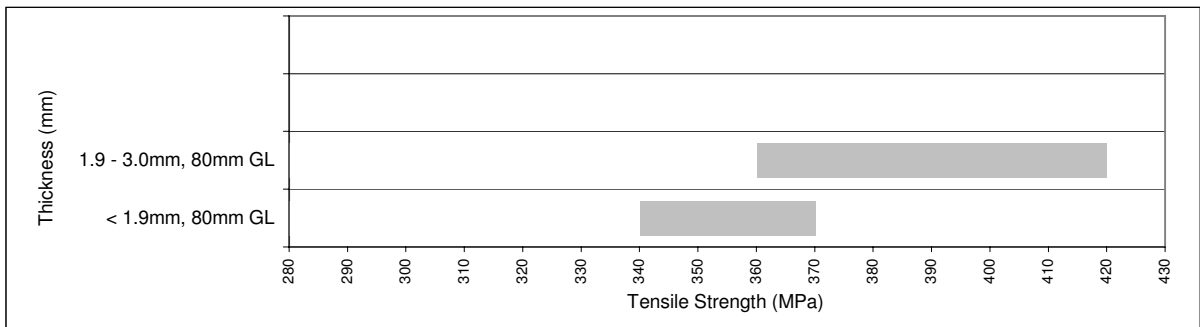
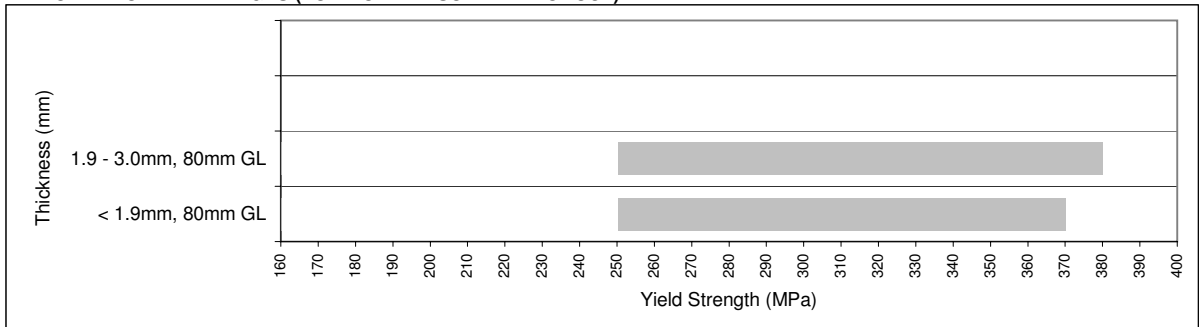
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## TYPICAL PROPERTY RANGES (FOR NORMAL SUPPLY PRODUCT)



**Note:** Typical mechanical properties are based on aggregation of mean and 2 SD performance

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Please ensure you have the current datasheet for this product as displayed at [www.bluescopesteel.com](http://www.bluescopesteel.com)

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