

# Data Sheet

## HIGH TENSILE PLATE HT80

### SPECIFICATION

- Bisalloy - BIS 80
- ASSMC WEL-TEN 780E/7805
- JFE- Hiten 7805/780LE
- SSAB - Weldom 780

### PRODUCT DESCRIPTION

- A high strength, low alloy steel plate with a minimum yield strength of 685MPa. Excellent notch toughness, good weldability and good formability.
- Ideal for use in applications where increased strength and reduced weight is required.

### SUPPLY CONDITIONS

- Thickness Range 5mm—100mm

### TYPICAL USES

- Transport equipment eg low loaders
- High-rise buildings eg Columns
- Mining equipment eg Dump truck trays/ longwall roof supports
- Lifting equipment eg mobile cranes/ container handling equipment
- Bridges
- Storage tanks
- Excavator buckets
- Inducted draft fans

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### CHEMICAL COMPOSITION

Element	Guaranteed Maximum	Typical %/ Thickness (mm)	
		5 < t < 16	16 < t < 80
Carbon	0.20	0.18	0.20
Silicon	0.35	0.25	0.25
Manganese	1.60	1.50	1.50
Phosphorus	0.025	0.020	0.020
Sulphur	0.015	0.008	0.008
Copper	0.040	0.030	0.030
Nickel	1.00	0.70	0.70
Chromium	0.70	0.50	0.50
Molybdenum	0.50	0.40	0.40
Vanadium	0.08	0.05	0.05
Boron	0.005	0.003	0.003
CEQ (IIW)	0.50 typical	0.45	0.47

### MECHANICAL PROPERTIES

Typical Properties (Transverse)		Thickness Range (mm)
		5mm—100mm
Guaranteed Min.	Yield Strength (MPa)	665
	Tensile Strength (MPa)	780-930
Typical	Yield Strength (MPa)	750
	Tensile Strength (MPa)	830
	Elong. On 5.65 / So (%)	26

#### HARDNESS

Typical

255HB

### FABRICATION

High Tensile Plate HT80 is a high strength steel manufactured with a controlled carbon equivalent for optimum weld ability.

High Tensile Plate HT80 can be successfully welded to itself and a range of other steels, providing low hydrogen consumables are used and attention is paid to preheat, interpass temperature, heat input and the degree of joint restraint. Stress relieving can be achieved at 540c to 570c. Heating above this temperature should be avoided to minimize any adverse effects on mechanical properties.

Cold forming can be successfully conducted, provided due account is taken of the increased strength of the steel.

For further details on fabrication please contact LaserTek office.

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