

# ITM Materials, Quality and Tolerances: Carbon Steel

## Material Properties

Cold Rolled Mild Steel, Pre Galvanised and Aluminised coil is purchased from New Zealand or International steel mill to stringent drawing gauge and required industry standards and specification.

Standard base materials currently used include:

- Cold Rolled Mild Steel:

SPCC-CD or JIS 3141

0.80mm to 2.5mm  
(including gauges  
between)

- Pre Galvanised Commercial Grade Steel:

AS/NZS1365 G250 Z275 and G310 Z450

0.90mm to 2.5mm  
(including gauges  
between)

- Aluminised Steel:

ASTM A463, T1-40

1.6mm gauge

- Thickness Tolerance:

+/- 8% of specified wall thickness

- Surface Finish:

Lightly oiled

Alternative base materials can be used by special arrangement.

Full mechanical properties for all base material used is available on our Web Site, or our Product Catalogue supplied on request.

## **Quality Standards**

Industrial Tube Manufacturing Co. Ltd takes pride in efficiently producing quality tubing on a consistent basis, with strong inhouse quality process in place.

During our manufacturing process the tube is subjected to stringent testing:

- Flare Test: Outside diameter increased by 25% or more without failure to either the base material or the weld zone.
- Flattening Test: Capable of being flattened without cracking between two parallel planes with the weld zone located at both 90 and 0 degrees.
- Surface examination: Visual inspection for external surface damage, straightness, twist, weld position, correct profile etc. must meet company and/or customer specification.