Created by	New Zealand Tube Mills	Technical Information	Page: 1 of 1
QA Engineer			
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NZTM-Q04B:- Stainless Steel Coil Specification (S304L)

This internal specification covers the mechanical properties , chemical compositions & surface finish of type 304L Stainless Steel coil used by New Zealand Tube Mills for the manufacture of tubular product.

When forming stainless strip into tubular sections, the mechanical properties are affected. The extent of this effect depends on the specific dimensions of tube being produced and particularly the tube diameter to thickness ratio. In general during tube forming, the yield stress will be substantially increased, the tensile strength slightly increased and elongation reduced.

SPECIFIED MINIMUM MECHANICAL PROPERTIES OF STRIP

YIELD STRESS (min)	170 MPa (30ksi)
TENSILE STRESS (min)	485 MPa (75.5ksi)
ELONGATION (min)	40%
HARDNESS (max)	92 Rockwell B (201 HB)

NORMAL RANGE OF MECHANICAL PROPERTIES OF STRIP

YIELD STRESS	241 to 276 MPa
TENSILE STRESS	558 to 600 MPa
ELONGATION	47 to 53%
HARDNESS	72 to 77 HRB

SPECIFIED CHEMICAL COMPOSITION - (LADLE ANALYSIS)

CARBON	C	0.03 % (max)
SILICON	Si	0.75 % (max)
MANGANESE	Mn	2.00 % (max)
PHOSPHORUS	P	0.045 % (max)
SULPHUR	S	0.03 % (max)
CHROMIUM	Cr	17.50 to 19.50 %
NICKEL	Ni	8 to 12 %

SURFACE FINISH

FINISH	2B

CONFORMANCE STANDARD

ASTM A240 / 480