

Created by QA Engineer	 <b>New Zealand Tube Mills</b>	<b>Technical Information</b>
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<b>NZTM-Q05A:-</b>	<b>Cold Rolled Mild (NZ) Steel Coil - (NZCC-MOD-T)</b>	
<b>This internal specification covers the mechanical properties and chemical composition of Cold Rolled Mild Steel coil sourced from New Zealand Steel and used by NZ Tube Mills for the manufacture of tube</b>		

*When forming steel 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 MECHANICAL PROPERTIES OF STRIP**

YIELD STRESS	160 MPa (min.)	215 MPa (max.)
TENSILE STRESS	285 MPa (min.)	340 MPa (max.)
ELONGATION (min.)	0.6 < Wall Thickness ≤ 1.0mm = 41 %	
	1.0 < Wall Thickness ≤ 1.6mm = 43 %	
	1.6 < Wall Thickness = 45 %	
HARDNESS	40 HRB (min.)	60 HRB (max.)

### **NORMAL RANGE OF MECHANICAL PROPERTIES OF STRIP**

YIELD STRESS	165 to 205 MPa
TENSILE STRESS	290 to 330 MPa
ELONGATION	46 to 55 %

### **SPECIFIED CHEMICAL COMPOSITION - (LADLE ANALYSIS)**

CARBON	C	0.020 to 0.064% max.
MANGANESE	Mn	0.17 to 0.24% max.
PHOSPHORUS	P	0.022%
SULPHUR	S	0.030%
VANADIUM	V	0.010%
SILICON	Si	0.010%

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