FRAMECAD® 550

Introduction

Cold Formed Steel construction is an advanced and precise system using the latest technology. As with all advanced technology the use of materials with the correct specifications is essential to ensure the total system will function efficiently and as designed.

Using materials proven to comply to specification not only protects your equipment and the precision of the system, it determines the integrity of the dwelling or commercial structure to be built.

Materials and components with proven quality levels will give the engineer, specifier and final customer confidence in the long term integrity of their project.

General Description

FRAMECAD® 550 is a hot dipped galvanised structural grade steel developed specifically to maximise the efficiency of cold formed steel construction projects.

FRAMECAD® 550 provides the highest yield strength to minimise the total steel requirement in each of your engineered structures.

FRAMECAD® 550 has a guaranteed minimum yield of 550MPa to maximise yield and lower build costs.

Most importantly FRAMECAD® 550 is supplied with full compliance certificates to assure specifiers the materials are compliant to International Standards.

Application

FRAMECAD® 550 is the ideal steel specification for all structural steel framing applications to provide benefits in transportables & modular projects, high volume social housing, bespoke architectural designs or even light commercial applications.

FRAMECAD® 550 will allow compliance to all major Building Codes and Standards by ensuring your frames offer the highest capacities required.

Coating

FRAMECAD® 550 is hot-dip galvanised to a weight of 275gm/m^2 (Z275) which is ideal for use in permanent structures. Z275 coatings are not recommended for exposed applications - please discuss any specialised requirements with your FRAMECAD® representative.

FRAMECAD® 550 is supplied with a regular spangle as standard.

International Standards

The following International Standards correspond in full or in part to the manufacturing and processing of material dimensions listed in this document:

ISO 3575:2005 *Continuous hot-dip zinc-coated carbon steel sheet of commercial and drawing qualities.*

ISO 4998:2005 *Continuous hot-dip zinc-coated carbon steel sheet of structural quality*

ISO 1460 *Metallic coatings - Hot dip galvanised coatings on ferrous materials - Gravimetric determination of the mass per unit area.*

Typical Dimensional Combinations

Thickness (BMT)	Typical Slit Widths
0.55mm	156mm, 182mm,
0.75mm	156mm, 182mm, 242mm
0.95mm	156mm, 182mm, 242mm
1.15mm	156mm, 182mm, 242mm

Typical slit coil weights range from 800 - 1300kg
Typical pack weights range from 3500 - 5000kg
Please discuss any specific weight limitations or pack combinations with your FRAMECAD® representative.

These steel dimensions are a reflection of the most commonly supplied dimensional combinations typically used in cold formed steel profile manufacture. Supply conditions may be subject to material availability and dimensional restrictions. Other dimensional combinations are available on enquiry.

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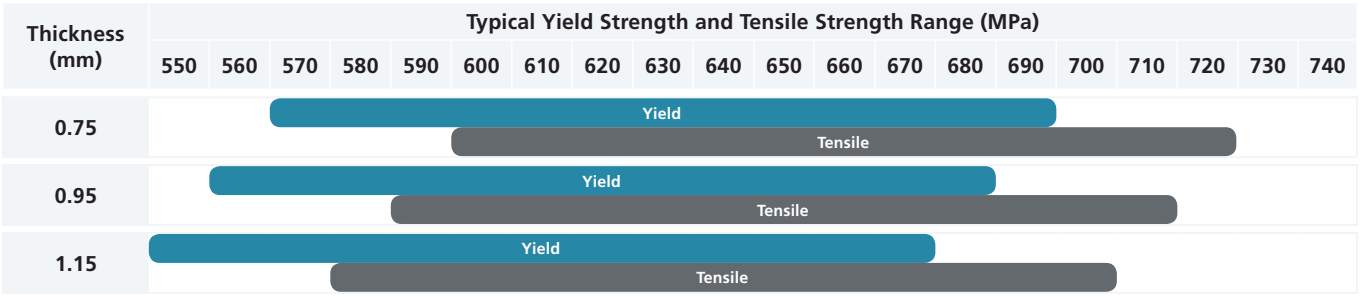
Typical Property Range (Normal Supply Product)



Typical Mechanical Properties are based on standard product dispatched to customers. Note that ductility will decline through a natural aging process during storage and during normal roll forming processes.

Typical Mechanical Properties

Typical Mechanical Properties Requirement (Base Metal)	
Mechanical Property	**Typical Result**
Yield Strength	550 MPa (min.)
Tensile Strength	570 MPa (min.)
Elongation - % L_o - 50mm	3%
Ductility Ratio (Tensile : Yield)	1.04
180^0 Transverse Bend	3t
Thickness Tolerance:	+/- 0.06mm
Coating Mass	275 g/m² (G90)
Coating Type	Hot Dip Galvanised

In determining the base metal mechanical properties, base metal thickness should be measured after stripping the coating from the end of the specimen contacting the grips of tension testing machine.

Chemical Composition

Chemical Property	Guaranteed Max.
Carbon - C	0.30 max.
Phosphorus - P	0.20 max.
Manganese - Mn	2.50 max.
Sulphur - S	0.05 max.

Storage

Material should be stored under cover and protected from exposure to moisture and weather.

Material should be used promptly (within 6 months) to avoid the possibility of storage related corrosion.

Important Notes

Typical mechanical properties are based on typical product despatched to customers. Note that ductility will decline through a natural aging process during storage.

For product outside of the standard product range please contact your local sales office.

We have offices here:

Auckland, New Zealand (Head Office) | Dubai, UAE | Dallas, USA | Hong Kong | Melbourne, Australia | Johannesburg, South Africa

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