

FRAMECAD® 350

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® 350 is a hot dipped galvanised structural grade steel developed specifically to maximise the production efficiency when working on heavier gauge cold formed steel construction projects.

FRAMECAD® 350 has a guaranteed minimum yield of 350MPa to offer a high yield strength while ensuring sufficient flexibility to allow the easy assembly of frames 1.55mm and thicker.

Most importantly FRAMECAD® 350 is supplied with full compliance certificates to assure specifiers the materials are compliant to International Standards.

Application

FRAMECAD® 350 is ideal for multilevel structures, industrial applications or high capacity designs where the use of framing made with 1.55 to 2.6mm steel is common.

While FRAMECAD® 350 is also suitable for use in high seismic regions or where local building codes require minimum elongation requirements, it is recommended that FRAMECAD® 500 be used for this application.

Coating

FRAMECAD® 350 is hot-dip galvanised to a weight of 275gm/m² (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® 350 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
1.15mm	182mm, 242mm, 369mm
1.55mm	182mm, 242mm, 369mm
1.95mm	182mm, 242mm, 369mm

Typical slit coil weights range from 800 - 1800kg

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.



FRAMECAD® 350

Typical Property Range (Normal Supply Product)

Thickness (mm)	Typical Yield Strength and Tensile Strength Range (MPa)																					
	350	360	370	380	390	400	410	420	430	440	450	460	470	480	490	400	510	520	530	540	550	560
1.15	Yield											Tensile										
1.55	Yield											Tensile										
1.95	Yield											Tensile										

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	350 MPa (min.)
Tensile Strength	490 MPa (min.)
Elongation - % L ₀ - 50mm	16%
Ductility Ratio (Tensile : Yield)	1.30
180° Transverse Bend	3t (Coating Adherence)
Thickness Tolerance:	+/- 0.09mm
Coating Mass	275 g/m ² (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	2.00% max.
Sulphur - S	0.05% max.

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