

**FC IFS 3 - Insulated Façade System + 12mm Fibre Cement Sheet + Double Layer 15mm Fire Gypsum**

Assembly #	Wall Type	Stud Size (mm)	Steel			Exterior Cladding	Building Wrap	Cavity Fill	Interior Lining	Rating Side	Fire Rating (Min)	Acoustic Rating (STC dB)	Thermal Rating (M <sup>2</sup> K/W)
			Thickness (mm)	Coating	Grade								
FC IFS 3	Exterior Load Bearing Wall	89 to 100	0.95 to 2.00	Z275	G350 to G550	FRAMECAD® 60mm Insulated Façade System + FRAMECAD® 12mm Fibre Cement Sheet	FRAMECAD® Tyvek®	Rockwool or Glasswool min. R-Value 1.9 M <sup>2</sup> KW	Double Layer FRAMECAD® 15mm Fire Resistant Gypsum	Inside	120min.	50	2.73
											Ref. FCTR.1401		

**Framing and Wall Height**

FRAMECAD® Stud width shall be 35mm minimum. Stud spacing shall be at 610mm centers maximum. Frame height as determined by specific design.

**Cladding**

FRAMECAD® 60mm Insulated Façade System + one layer of FRAMECAD® 12mm Fibre Cement Sheet fixed on the external side of the FRAMECAD® cold formed steel wall frame.

Vertical fixing. Full height sheets shall be used where possible. All Sheets joints to be formed over studs and nogs.

All sheets to be fixed a minimum of 50mm from ground level, unless a "Z" flashing is provided or as per local building regulation.

All Sheets to extend below the finished floor level by a minimum of 50mm.

**Building Wrap**

Install with a 150mm overlap between runs, with each higher run lapping over the layer below. Install external cladding without delay.

**Cavity Fill**

Rockwool or Glasswool Insulation. Avoid creating gaps and spaces, as they will allow warm air to bypass the insulation and escape. Cut batts to length by setting the top of the batt into the space and cutting against the bottom plate with a sharp utility knife. Leave an extra 25mm (1/2 inch) of length for a complete fit. Stuff strips of batting into spaces around windows and doors. The insulation should fit snugly, don't pack it.

Rockwool or Glasswool min. R-Value 1.9 M<sup>2</sup> KW

**Lining**

Two layers of FRAMECAD® 15mm Fire Resistant Gypsum Board on internal side of the FRAMECAD® cold formed steel wall frame.

Vertical fixing. Full height sheets shall be used where possible.

Horizontal fixing is permitted as long as all longitudinal sheet joints are formed over nogs/dwangs. When sheet end butts joints are unavoidable, they shall be fixed at 200mm centres and formed over framing. All sheet joints must be formed over framing.

Linings are fixed 10mm off the floor.

**Fastening**
**Cladding**

FRAMECAD® 12mm Fibre Cement Sheet to be fixed underneath the FRAMECAD® Insulated Façade and fixed directly to FRAMECAD® cold formed steel wall frames using 030149 FRAMECAD® X-Drive® 8g x 35mm CSK Winged Drill Point screws, at 200mm centers along sheet perimeter and centre studs. Fibre Cement fastening placement should be 12mm from sheet edge and 50mm from sheet corners. All end joints must be touch fitted.

The Insulated Façade System is fixed over the FRAMECAD® 12mm Fibre Cement Sheeting vertically, fixed through the fibre cement sheeting into the frame, and must be fully supported on all edges and butt joined hard against each other. For fastening placement refer to FRAMECAD® Trade Spec Document 2.4.

**Lining**
**Inner Layer Lining**

FRAMECAD® 15mm Fire Resistant Gypsum Board to be fixed using 001848 FRAMECAD® 6g x 32mm Bugle Head Drill Point screws, at 600mm centers along sheet perimeter and center studs. Fastening placement should be 12mm from sheet edge and 50mm from sheet corners.

**Outer Layer Lining**

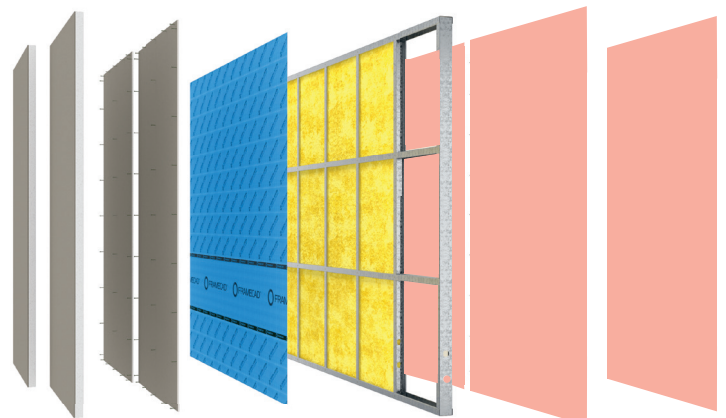
FRAMECAD® 15mm Fire Resistant Gypsum Board to be fixed using FRAMECAD® 6g x 51mm Bugle Head Drill Point screws, at 200mm centers along sheet perimeter and center studs. Fastening placement should be 12mm from sheet edge and 50mm from sheet corners.

*Note: FRAMECAD® recommends a glue and screw method to aid linings being affixed to wall, ceiling and floor frames. Glue dabs must be intermittent with a minimum distance of 100mm from fastening placement.*

**Jointing and Finishing**

All screw heads to cover fastener heads with joint compound and all sheets joints to have reinforced tape and stopped / jointed in accordance with the stopping / jointing compound manufacturers recommendations.

Refer to the FRAMECAD® Insulated Façade System & the FRAMECAD® Gypsum Board Technical Guide for cold formed steel construction for full details on installation, jointing and finishing.



**NOTE:** In order for FRAMECAD® Wall Solutions to perform as designed all components must be installed exactly as prescribed. Substituting building components may produce an entirely different solution and may seriously compromise performance.

FC IFS 3 - Insulated Façade System + 12mm Fibre Cement Sheet + Double Layer 15mm Fire Gypsum

FRAMECAD® Design and Build System delivers a full range of building assemblies that meet fire, thermal and acoustic values. For details on the appropriate assembly for your project please contact us.

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**FRAMECAD® Ceiling Assembly Solution**  
August 2013

9.5mm Gypsum Board - Internal Ceiling

Assembly #	Stud System	Steel		Insulation	Interior Lining	Target Rating		
		Thickness (mm)	Grade			Fire	Acoustic STC dB	Thermal R (m <sup>2</sup> K/W)
FC 2	FRAMECAD® Ceiling Batten	0.55 Minimum	Z275	G250 to G300	FRAMECAD® 9.5mm Gypsum Board	30 min.	45	R = 1.3

**Ceiling Batten**  
FRAMECAD® Ceiling Batten spacing shall be at 450mm centers maximum.

**Cavity Fill (Optional)**  
Glasswool insulation. Avoid creating gaps and spaces, as they will allow warm air to bypass the insulation and escape. Cut batts to length by setting the top of the batts into the space and cutting with a sharp utility knife. Leave an extra 25mm (1/2 inch) of length for a complete fit. Squirt strips of batting into spaces. The insulation should fit snugly, don't pack it.

**Lining**  
One layer of FRAMECAD® 9.5mm Gypsum Board fixed to FRAMECAD® cold formed steel ceiling batten. Full length sheets shall be used where possible. All butt joints must be formed over framing.

**Fastening**  
**Ceiling Lining**  
FRAMECAD® 9.5mm Gypsum Board to be fixed using 001848 FRAMECAD® 6 x 25mm Bugle Head, DRI Point screws, at 300mm centers along 3<sup>rd</sup> perimeter and center studs. Fastening placement should be 12mm from sheet edge and 50mm from sheet corners. All end joints must be to perimeter. FRAMECAD® recommends a glue and screw method to aid in fitting to wall, ceiling and floor frame. Glue tabs must be at least a minimum distance of 100mm from fastening placement.

**Jointing and Finishing**  
All screw heads to be stopped and all sheets joints to have a recessed joint in accordance with the stopping / jointing compound manufacturer's recommendations.

**Notes:**  
1. In order for FRAMECAD® solutions to perform as tested and designed an appropriate professional advisor is required. Unqualified building components may produce an entirely different solution and may not meet performance requirements.

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**FRAMECAD® Wall Assembly Solution**  
August 2013

9mm Fibre Cement Weatherboards + 15mm Fire Retardant Gypsum Board

Assembly #	Stud System	Steel		Insulation	Interior Lining	Target Rating		
		Thickness (mm)	Grade			Fire	Acoustic STC dB	Thermal R (m <sup>2</sup> K/W)
FC IW 2	68 T50	0.75 to 2.00	Z275	G250 to G300	FRAMECAD® 12mm Fire Retardant Gypsum Board	30 min.	45	R = 1.6

**Framing and Wall Height**  
FRAMECAD® wall height shall be 10mm minimum. Stud spacing shall be at 600mm centers maximum. Frame height as determined by specific design.

**Ceiling**  
One layer of FRAMECAD® 9.5mm Gypsum Board to be fixed using 001848 FRAMECAD® 6 x 25mm Bugle Head, DRI Point screws, at 300mm centers along 3<sup>rd</sup> perimeter and center studs. Fastening placement should be 12mm from sheet edge and 50mm from sheet corners. All end joints must be to perimeter. FRAMECAD® recommends a glue and screw method to aid in fitting to wall, ceiling and floor frame. Glue tabs must be at least a minimum distance of 100mm from fastening placement.

**Building Weep**  
To be placed at a 100mm vertical distance from the bottom edge of the weatherboard. The weep shall be made in such a way to prevent water from entering the cavity. The weep shall be made in such a way to prevent water from entering the cavity.

**Cavity Fill**  
Glasswool insulation. Avoid creating gaps and spaces, as they will allow warm air to bypass the insulation and escape. Cut batts to length by setting the top of the batts into the space and cutting with a sharp utility knife. Leave an extra 25mm (1/2 inch) of length for a complete fit. Squirt strips of batting into spaces. The insulation should fit snugly, don't pack it.

**Lining**  
One layer of FRAMECAD® 15mm Fire Retardant Gypsum Board to be fixed using 001848 FRAMECAD® 6 x 25mm Bugle Head, DRI Point screws, at 300mm centers along 3<sup>rd</sup> perimeter and center studs. Fastening placement should be 12mm from sheet edge and 50mm from sheet corners. All end joints must be to perimeter. FRAMECAD® recommends a glue and screw method to aid in fitting to wall, ceiling and floor frame. Glue tabs must be at least a minimum distance of 100mm from fastening placement.

**Jointing and Finishing**  
All screw heads to be stopped and all sheets joints to have a recessed joint in accordance with the stopping / jointing compound manufacturer's recommendations.

**Notes:**  
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