Siniat by etex

# **Drywall** Manual

Floors and Ceilings Section

Version 2.0.0

Publication date: July 2025



For ease of download, the Siniat Drywall Manual has been split into separate volumes with their own page numbering.

#### Floors and Ceilings section

This section has been re-branded and discontinued products removed since it was published in December 2018.

#### **Revision history**

Version	Date of publication
1.0.0	December 2018
1.0.1	July 2022: Re-branded, discontinued products removed, no technical review.
2.0.0	June 2025: Technically reviewed and updated. New system naming and revised performances to provide EN classification.

Please check that this is the current version by visiting the Siniat/Promat websites. For archived versions please contact technical services.

# Floors and Ceilings

Siniat Floor and Ceiling systems are used to achieve acoustic and fire resistant solutions for both domestic and commercial building projects. A range of solutions is available; from direct fix to timber joists applications to suspended grid ceilings.

Version: **2.0.0** Published: **July 2025** 

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# The right route to compliance

Siniat are committed to using the latest standards to reduce the level of risk in construction and meet increasingly stringent regulations. This approach helps ensure that drywall remains one of the safest parts of a building specification, offering 'built-in' fire resistance and reducing project risk.

The most recent changes to Approved Document B asks for testing to EN fire standards; that the results are only extended using appropriate EN standards, by qualified third parties; and that all fire resistance performances are 3rd Party classified using the official EN classification standard, EN 13501-2.

#### How do Siniat fire test floors and ceilings?

A 3rd party UKAS Accredited notified laboratory conducts the test to standards such as EN 1364-2 'Fire resistance tests for non-loadbearing elements – Part 2: Ceilings', EN 1365-2 'Fire resistance tests for loadbearing elements. Floors and roofs' or EN 13381-1 'Test methods for determining the contribution to the fire resistance of structural members – Part 1: Horizontal protective membranes'.



#### How is a fire test extended?

By extending a fire test following strict EN standards, a single test can be used to substantiate variations of the specific build-up.

For floor and ceiling fire resistance no Extended Field of Application standard exists, so fire resistance performance can be extended via Direct Field of Application (DIAP) rules included in the fire test standard.

#### How is a floor and ceiling system classified?

Approved Document B asks that fire resistance of building elements should be classified in accordance with EN 13501-2. All of our floor and ceiling systems have an accompanying 3rd party classification report to this standard. It will contain:

- Details of test build-up
- Test results
- Fire classification
- System extensions allowed.



All Siniat systems have been classified to EN 13501-2.

# Performance tables introduction

#### Each system displayed may include:

- Build-up
- ▶ Fire performance to EN
- Acoustic performance
- Max span
- System weight
- Nominal thickness

#### Reading system codes

Each system displayed has a unique identification code, which spells out the build-up:

#### Framing-Boarding-Insulation

#### **Examples**

Timber floors and ceilings 195x44+RB-212Un-100G

- 195x44mm Timber joists with Siniat Resilient Bar
- 2 x 12.5mm Siniat Universal Board™ to underside
- 100mm Glass mineral wool

#### Suspended grid ceilings MF(1200.1200.400)-212F-50G

- Siniat MF Ceiling (Hanger, Primary and Ceiling Channels with respective centres)
- 2 x 12.5mm Siniat Fire Board
- 50mm Glass mineral wool

#### Performance notes

- Performance values are for imperforate, jointed systems using Siniat components (ceiling channels, boards, metal accessories, screws and finishing systems) and specified insulation quilt material (type and thickness) and installed to Siniat specification and installation guides. Any alterations may impair the quoted performance.
- ▶ Often, additional components such as resilient floors or existing soffits will contribute to the overall acoustic performance. Due to the number of possible variations, the acoustic performance values shown are for floor or ceiling system as described in the system tables. Additional components may be able to be modelled – contact Siniat Technical Services for more information.
- The EN 1365-2 direct field of application states that "the test results are directly applicable to a similar untested floor or roof construction provided the following is true: the maximum moments and shear forces, which when calculated on the same basis as the test load, shall not be greater than those tested."

In simpler terms, the fire resistance performance can be applied to a proposed floor as long as the calculated design forces are not greater than those in the test.

All Siniat load-bearing floors in this document have been fire resistance tested using the thinnest joist size for the load and span, achieving 100% Serviceability Limit State capacity utilization. For the specific loads and spans used during testing, please contact Siniat Technical Services.

By subjecting the load-bearing floors to maximum strain under fire conditions, designers can be confident that the minimum joist size outlined in the system table achieve the required fire resistance – structural engineers may still require increased thicknesses to achieve the project's specific design spans, but the fire resistance remains applicable.

Project designers should consult with structural engineers to confirm that the above conditions are applicable to their specific design. System performance tables

# Load-bearing Timber Floors 30 minute systems



Build-up		Performance			
	Component	<b>Fire perf.</b> EN 1365-2 & EN 13501-2 <sup>1</sup>	Acoustic ISO 717-1 R <sub>W</sub> +Ctr	Acoustic ISO 717-2 L <sub>n,W</sub>	Other Nominal thickness System weight
		(mins)	(Rw dB)	(L <sub>N,W</sub> dB)	(mm) (kg/m²)
225x44-12dB-	100G				
	Ceiling Inner Layer(s): – Ceiling Outer Layer(s): 1x 12.5mm Siniat dB Board Accessories: – Insulation: 100mm Glass Mineral Wool Structure: Min. 225x44mm Timber Joist at 600mm centres with perimeter and intermediate noggings Flooring Make-up: Min. 18mm OSB	€ REI30	43	71	255.5 39
195x44+RB-1	5F				
	Ceiling Inner Layer(s): – Ceiling Outer Layer(s): 1x 15mm Siniat Fire Board Accessories: Siniat Resilient Bars at 400mm centres Insulation: – Structure: Min. 195x44mm Timber Joist at 600mm centres Flooring Make-up: Min. 18mm T&G Chipboard	C REI30	46	75	245 40

NOTES

<sup>1</sup>Direction of fire exposure from below only.





For 90, 120 minute or fire from above applications, visit: promat.com/en-gb/construction/

#### System performance tables

# Load-bearing Timber Floors 60 minute systems



Build-up		Performance			
	Component	<b>Fire perf.</b> EN 1365-2 & EN 13501-2 <sup>1</sup>	Acoustic ISO 717-1 R <sub>W</sub> +Ctr	Acoustic ISO 717-2 L <sub>n,W</sub>	Other Nominal thickness System weight
		(mins)	(Rw dB)	(L <sub>N,W</sub> dB)	(mm) (kg/m²)
195x44-212F-	100G				
	Ceiling Inner Layer(s): 1x 12.5mm Siniat Fire Board Ceiling Outer Layer(s): 1x 12.5mm Siniat Fire Board Accessories: – Insulation: 100mm Glass Mineral Wool Structure: Min. 195x44mm Timber Joist at 600mm centres with perimeter and intermediate noggings Flooring Make-up: Min. 18mm T&G Chipboard	€ REI60	46	70	238 50
220x47+RB-21	12F				
	Ceiling Inner Layer(s): 1x 12.5mm Siniat Fire Board Ceiling Outer Layer(s): 1x 12.5mm Siniat Fire Board Accessories: Siniat Resilient Bars at 400mm centres Insulation: – Structure: Min. 220x47mm Timber Joist at 600mm centres Flooring Make-up: Min. 18mm OSB	€ REI60	51 -6	70	280 50
195x44+RB-2	12Un-100G				
	Ceiling Inner Layer(s): 1x 12.5mm Siniat Universal Board™ Ceiling Outer Layer(s): 1x 12.5mm Siniat Universal Board™ Accessories: Siniat Resilient Bars at 400mm centres Insulation: 100mm Glass Mineral Wool Structure: Min. 195x44mm Timber Joist at 600mm centres Flooring Make-up: Min. 18mm T&G Chipboard	€ REI60	57 -7	58	255 51
195x44+MF-2	15F-100G(313)				
	Ceiling Inner Layer(s): 1x 15mm Siniat Fire Board Ceiling Outer Layer(s): 1x 15mm Siniat Fire Board Accessories: Siniat Suspended MF Grid Ceiling Insulation: 100mm Glass Mineral Wool Structure: Min. 195x44mm Timber Joist at 600mm centres Flooring Make-up: Min. 18mm T&G Chipboard	C REI60	59 -6	62	Min. 313 55

#### NOTES

<sup>1</sup>Direction of fire exposure from below only.





# **Timber Ceilings**

Build-up	Performance			
Component	Fire perf. EN 1364-2 & EN 13501-2 <sup>1</sup>	Fire state maximum span	Acoustic ISO 717-1 R <sub>W</sub> +Ctr	Other Nominal thickness System weight
	(mins)	(m)	(R <sub>W</sub> dB)	(mm) (kg/m²)
150x35-215F-100G				
Ceiling Inner Layer(s): – 1x 15mm Siniat Fire Board Ceiling Outer Layer(s): 1x15mm Siniat Fire Board Structure: Min. 150x35mm Timber Ceiling Joist at 600mm centres with perimeter and intermediate noggings Insulation: 100mm Glass Mineral Wool	EI60	4.40	40	180 27

NOTES

<sup>1</sup>Direction of fire exposure from below only.





For 90, 120 minute or fire from above applications., visit: promat.com/en-gb/construction/



System performance tables

# Suspended MF Ceilings



Build-up		Performance				
	Component	<b>Fire perf.</b> EN 1364-2 & EN 13501-2 <sup>1</sup>	<b>Fire perf.</b> EN 13381-1 & EN 13501-2 <sup>1</sup>	Acoustic ISO 717-1 <sup>2</sup> R <sub>W</sub> +Ctr	Acoustic ISO 717-2² Ln,w	Other Nominal thickness System weight
		(mins)	(mins)	(R <sub>W</sub> dB)	(L <sub>n,W</sub> dB)	(mm) (kg/m²)
MF(1200.1200	).450)-12St					
	Ceiling Inner Layer(s): – Ceiling Outer Layer(s): 1x 12.5mm Siniat Standard Board Frame: Siniat Suspended MF Grid Ceiling Accessories: Siniat Connecting Clip Insulation: –	-	-	See note	See note	Variable 11
MF(1200.1200	).450)-12Mr					
	Ceiling Inner Layer(s): – Ceiling Outer Layer(s): 1x 12.5mm Siniat Moisture Board Frame: Siniat Suspended MF Grid Ceiling Accessories: Siniat Connecting Clip Insulation: –	-	-	See note	See note	Variable 11
MF(1200.1200	).450)-212F-25G					
	Ceiling Inner Layer(s): 1x 12.5mm Siniat Fire Board Ceiling Outer Layer(s): 1x 12.5mm Siniat Fire Board Frame: Siniat Suspended MF Grid Ceiling Accessories: – Insulation: 25mm Glass Mineral Wool	C EI30		See note	See note	Variable 24

NOTES

<sup>1</sup>Direction of fire exposure from below only.

<sup>2</sup>Acoustic performance dependent on the soffit construction. Contact Siniat Technical Services

for more information.

# Promat



For 90, 120 minute or fire from above applications, visit: promat.com/en-gb/construction/



#### Suspended MF Ceilings continued

Build-up		Performance				
	Component	<b>Fire perf.</b> EN 1364-2 & EN 13501-2 <sup>1</sup>	<b>Fire perf.</b> EN 13381-1 & EN 13501-2 <sup>1</sup>	Acoustic ISO 717-12 R <sub>W</sub> +Ctr	Acoustic ISO 717-2² L <sub>n,w</sub>	Other Nominal thickness System weight
		(mins)	(mins)	(R <sub>W</sub> dB)	(L <sub>N,W</sub> dB)	(mm) (kg/m²)
MF(1200.1200	).400)-215F-100G					
	Ceiling Inner Layer(s): 1x 15mm Siniat Fire Board Ceiling Outer Layer(s): 1x 15mm Siniat Fire Board Frame: Siniat Suspended MF Grid Ceiling Accessories: – Insulation: 100mm Glass Mineral Wool	<b>⊘</b> EI60	-	See note	See note	Variable 27
PHM(1200.90	0.450)-212dB-100G					
	Ceiling Inner Layer(s): 1x 12,5mm Siniat dB Board Ceiling Outer Layer(s): 1x 12,5mm Siniat dB Board Frame: Siniat Heavy Duty Suspended MF Grid Ceiling Accessories: M6 Threaded Rod + Siniat Phonissimo Acoustic Hanger Insulation: 100mm Glass Mineral Wool	-	-	See note	See note	Variable 30
PHS(1200.900	).450)-315dB-100G					
	Ceiling Inner Layer(s): 1x 15mm Siniat dB Board Ceiling Outer Layer(s): 2x 15mm Siniat dB Board Frame: Siniat Heavy Duty Suspended MF Grid Ceiling Accessories: M6 Threaded Rod + Phonistar Acoustic Hanger Insulation: 100mm Glass Mineral Wool	-	-	See note	See note	Variable 50

#### NOTES

<sup>1</sup>Direction of fire exposure from below only.

<sup>2</sup>Acoustic performance dependent on the soffit construction. Contact Siniat Technical Services for more information.



# Suspended Acoustic Absorption MF Ceiling

Build-up		Performance		
	Component	Acoustic Absorption Class, BS EN ISO 11654 <sup>1</sup>	Absorption co-efficient (α <sub>W</sub> ), BS EN ISO 116541	Other Nominal thickness System weight (mm)
				(kg/m <sup>2</sup> )
MF(1200.1200.600)-1	12C10no8-75G(612)			
	Ceiling Inner Layer(s): – Ceiling Outer Layer(s): 1x 12.5mm Siniat Creason C10no8 Frame: Siniat Suspended MF Grid Ceiling Void Depth: 600mm Insulation: 75mm Glass Mineral Wool	В	0.80	612.5 12
MF(1200.1200.600)-1	12C10no8-50G(612)			
7777777 <sup>7</sup>	Ceiling Inner Layer(s): – Ceiling Outer Layer(s): 1x 12.5mm Siniat Creason C10no8 Frame: Siniat Suspended MF Grid Ceiling Void Depth: 600mm Insulation: 50mm Glass Mineral Wool	c	0.75	612.5 12
MF(1200.1200.600)-1	12C10no8-50G(312)			
	Ceiling Inner Layer(s): – Ceiling Outer Layer(s): 1x 12.5mm Siniat Creason C10no8 Frame: Siniat Suspended MF Grid Ceiling Void Depth: 300mm Insulation: 50mm Glass Mineral Wool	С	0.70	312.5 12
MF(1200.1200.600)-1	12C10no8(312)			
	Ceiling Inner Layer(s): – Ceiling Outer Layer(s): 1x 12.5mm Siniat Creason C10no8 Frame: Siniat Suspended MF Grid Ceiling Void Depth: 300mm Insulation: –	С	0.60	312.5 12
MF(1200.1200.600)-1	12R12no2-50G(312)			
	Ceiling Inner Layer(s): Ceiling Outer Layer(s): 1x 12.5mm Siniat Creason R12no2 Frame: Siniat Suspended MF Grid Ceiling Void Depth: 300mm Insulation: 50mm Glass Mineral Wool	С	0.70	312.5 12
MF(1200.1200.600)-	12R12no2(312)			
	Ceiling Inner Layer(s): – Ceiling Outer Layer(s): 1x 12.5mm Siniat Creason R12no2 Frame: Siniat Suspended MF Grid Ceiling Void Depth: 300mm Insulation: –	С	0.65	312.5 12

NOTES

<sup>1</sup>Void depth must be maintained to achieve quoted performances.

#### Suspended Acoustic Absorption MF Ceiling continued

Build-up		Performance		
	Component	Acoustic Absorption Class, BS EN ISO 11654 <sup>1</sup>	Absorption co-efficient (α <sub>W</sub> ), BS EN ISO 11654¹	<b>Other</b> Nominal thickness System weight
				(mm) (kg/m²)
MF(1200.1200.600)-1	2R15no1-50G(312)			
	Ceiling Inner Layer(s): – Ceiling Outer Layer(s): 1x 12.5mm Siniat Creason R15no1 Frame: Siniat Suspended MF Grid Ceiling Void Depth: 300mm Insulation: 50mm Glass Mineral Wool	С	0.7	312.5 12
MF(1200.1200.600)-1	2R15no8-50G(312)			
	Ceiling Inner Layer(s): – Ceiling Outer Layer(s): 1x 12.5mm Siniat Creason R15no8 Frame: Siniat Suspended MF Grid Ceiling Void Depth: 300mm Insulation: 50mm Glass Mineral Wool	С	0.60	312.5 12
MF(1200.1200.600)-1	2R15no8(312)			
	Ceiling Inner Layer(s): – Ceiling Outer Layer(s): 1x 12.5mm Siniat Creason R15no8 Frame: Siniat Suspended MF Grid Ceiling Void Depth: 300mm Insulation: –	D	0.50	312.5 12
MF(1200.1200.600)-1	2L5X80no8-80G(312)			
	Ceiling Inner Layer(s): – Ceiling Outer Layer(s): 1x 12.5mm Siniat Creason L5X80no8 Frame: Siniat Suspended MF Grid Ceiling Void Depth: 300mm Insulation: 80mm Glass Mineral Wool	D	0.55	312.5 12
MF(1200.1200.600)-1	2L5X80no8-80G(112)			
	Ceiling Inner Layer(s): – Ceiling Outer Layer(s): 1x 12.5mm Siniat Creason L5X80no8 Frame: Siniat Suspended MF Grid Ceiling Void Depth: 100mm Insulation: 80mm Glass Mineral Wool	D	0.55	112.5 12

NOTES <sup>1</sup>Void depth must be maintained to achieve quoted performances.

system guidance

# Siniat Load-bearing Timber Floor Systems

The Siniat Direct-to-Timber Ceiling system is the simplest method of creating a flat ceiling surface for decoration and achieving excellent fire performance. Siniat Plasterboard is attached directly to the underside of floor joists or to the bottom chords of roof trusses with insulation between rafter to boost acoustic and fire performance. Refer to the System Performance Tables on pages 5 to 7 for full details.

#### Where to use:

The Siniat Direct-to-Timber system is used in both renovation and new-build domestic applications.

Features	Benefits
Only requires board and screws	Cavity size can be optimised for service and insulation requirements
Compatible with Siniat Board options	Achieves required fire performance
Flat finish	Provides easy to decorate surface



### system components

#### **Boards**



All Siniat Board Provides wall surface suitable for finishing.

See System performance tables, page 5 to 10

### Frame



Timber joist



Siniat Resilient Bar An acoustic isolation bar for improving the sound separation between frame and boards.

RBD3000/RX

Insulation

Mineral wool insulation

#### fix



**Siniat Drywall Screws (as appropriate)** For mechanical fixing of boards to metal.

See annex d: screw selection guide

### Finishing



Siniat Joint Tape Joint reinforcement in conjunction with Siniat Jointing Compounds.



Siniat Intumescent Acoustic Sealant Perimeter sealing to restrict smoke, sound and fire penetration to achieve quoted performances.

∦siniat

Siniat Sealer

universal sealer

To seal plasterboard prior to decoration.



Siniat Compounds To finish joints between boards and bed corner beads prior to decorating, Ensures system performance.

See annex b: product reference

Timber frame: Structural frame forming part of an external or internal wall Supplied by others.

# system guidance

#### Frame

FC-DT-101-Timber frame layout



FC-DT-102-Timber frame layout with Siniat Resilient Bars



Note: Framing requirements vary based on the type of load-bearing timber floor. Please refer to the specific guidance for the application from the options below:

#### For floors / ceilings providing fire resistance performance:

- Timber joist and floor board sizes to meet the required minimum sizes as described by the system tables.
- Installation method must be as described by the system tables including the below:

# Frame requirements for direct fix to the underside of timber joists:

- Perimeter noggings are required around complete perimeter of room.
- Intermediate noggings are required to pick up bound edges of boards in the outermost layer.
- Perimeter and intermediate noggings must be a minimum size of 45mm by 45mm.

- Frame requirements when using Siniat Resilient Bars to the underside of timber joists:
- ▶ No intermediate or perimeter timber noggings required
- Siniat Resilient Bars to be installed at a maximum 400mm centres perpendicular to joist direction and fixed to every timber joist.
- Short runs of Siniat Resilient Bars to be installed at perimeter between main runs of resilient bars to pick up perimeter board fixing.
- No additional joint reinforcement required for bound board edges.

#### Frame requirements when using Siniat MF Suspended Ceiling to the underside of timber joists:

- Siniat Metal Angles to be installed at a maximum 1200mm centres and fixed to side of timber joist
- Siniat Primary Channel to be installed at a maximum 1200mm centres perpendicular to timber joist direction.
- Siniat Ceiling Channels to be installed at a maximum 400mm centres perpendicular to Siniat Primary Channels and screw fixed.
- Siniat Edge Channel to be installed around complete perimeter.

# For direct fix floors / ceilings not providing fire resistance performance (i.e decorative only):

- 9.5mm boards: Max joist centres 400mm (no intermediate noggings), 450mm (intermediate noggings required). Perimeter noggings always required.
- 12.5mm & 15mm boards: Max joist centres 400mm and 450mm (no intermediate noggings), 600mm (intermediate noggings required). Perimeter noggings always required.
- 19mm boards: Max joist centres 600mm, no noggings required.

#### Boarding

FC-DT-201-Boarding layout - Single layer



#### FC-DT-202-Boarding layout - Double layer



#### FC-DT-203-Boarding layout - Single layer Siniat Base Board (decorative only, no fire resistance performance)



- Siniat Direct-to-Timber Ceiling system is suitable for single, double and multiple layer boarding.
- Select base layer(s) and finishing layer(s)
  Siniat Boards by consulting System Performance
  Tables (pages 5 to 6) and Product
  Specification see annex b: product reference
  to achieve required performance.
- Boards to be supported by joists and intermediate noggings where required.
- Boards to be mechanically fixed to perimeter noggings at 150mm centres using appropriate Siniat High Thread Drywall Screws. See annex d: screw selection guide.
- Boards to be mechanically fixed to joists or intermediate noggings at 230mm centres in centre of

board or bound edges and at 150mm centres at cut edges, using appropriate Siniat High Thread Drywall Screws. See annex d: screw selection guide.

Board joints to be staggered between layers.

#### Siniat Resilient Bar option only:

- Siniat Resilient Bar is suitable for single and double layer boarding.
- Boards to be mechanically fixed to Siniat Resilient Bar only at 150mm centres for cut edges and perimeter and at 230mm centres in centre of board, 400mm centres at bound edges, using shortest appropriate Siniat Drywall Screws. Screws must not penetrate joists or noggings.

#### Junctions

FC-DT-210-Perpendicular partition to underside of fire resistant load-bearing timber floor



FC-DT-310-Perpendicular partition to underside of fire resistant load-bearing timber floor with resilient bar



FC-DT-211-Parallel partition to underside of fire resistant load-bearing timber floor



FC-DT-311-Parallel partition to underside of fire resistant load-bearing timber floor with resilient bar



#### **Junctions** (continued)

FC-DT-410-Parallel partition to underside of fire resistant load-bearing timber floor with MF ceiling - Option 1, additional ceiling channel



Siniat direct bond system Siniat Intumescent Acoustic Sealant Load-bearing timber floor 1 Siniat Metal Angle Additional Siniat **Ceiling Channel** to provide fixing to partition head Siniat Partition System - max. height 4m Note: assumed no deflection section

FC-DT-411-Parallel partition to underside of fire resistant load-bearing timber floor with MF ceiling - Option 2, MFIX



#### **Fixtures**

- Fixtures and loadings to be suspended from structural soffit/joist and not Siniat Board.
- Services running through ceiling void to be supported by structural soffit/joist and not Siniat Board.

#### Penetrations

- ▶ M&E runs and other services to be pre-planned to minimise or eliminate penetrations through rated ceilings.
- Any penetrations must be fully sealed with Siniat Intumescent Acoustic Sealant or other fire and sound resisting material.

#### Finishing

- All board joints to be taped, jointed or finished according to our guidance in <u>annex a1: taping</u> and jointing through annex a4: cove to achieve system performances.
- Siniat Finish materials appropriate to board type to be used.

#### System continuity

- ▶ Full, imperforate system continuity to be maintained to achieve rated performances.
- Bead of Siniat Intumescent Acoustic Sealant to be applied to perimeter of all runs and in all other locations specified in Construction Detail Drawings.
- ▶ Siniat Intumescent Acoustic Sealant to seal all other acoustic or air paths to prevent fire/smoke spread and acoustic transmission.



system guidance

# Siniat Suspended MF Ceiling Systems

The Siniat Suspended MF Ceilings are used to create 'false ceilings' which house services between the ceiling and soffit. The large voids created can also improve acoustic, fire and thermal performance. Siniat Suspended MF Ceilings are formed from a series of Siniat Primary Channels hung from the soffit. Attached to these channels are Siniat Ceiling Channels, slotted into Siniat Edge Channel to form the frame.

Siniat Board is fixed to the MF frame to complete the system. Refer to the System Performance Tables on pages 9 to 10.

#### Where to use:

- Siniat Suspended MF Ceilings are used for commercial applications where services are required below the soffit.
- For ceilings with enhanced fire and acoustic performance in commercial and residential applications.

Features	Benefits
Variable cavity depth	Optimisable cavity size for service and insulation requirements
Acoustic, fire and thermal capabilities	Can upgrade existing floors
Creates a 'false ceiling'	Hide service zones
Flat finish	Provides a smooth surface for decorating



Siniat Primary Channel

# System components

#### **Boards**



Provides wall surface suitable for finishing.

See System performance tables, page 9 to 10

#### Frame



Siniat Ceiling Channel Steel channel to support boards.

MFCC50



Siniat Primary Channel Steel channel to support Siniat Ceiling Channel.

MFCP44



Siniat Heavy Gauge Primary Channel Heavy duty steel channel to support Siniat Ceiling Channel.

UT52/Y



Siniat Edge Channel Steel channel used to form perimeter board support.

MFCE26



Siniat Metal Angle Multi-purpose galvanised metal section used as suspension hangers to support Siniat Primary Channels.

MFC2525, MFC2550, MFC2330



Siniat Connecting Clip Steel clip for joining Siniat Ceiling Channel to Siniat Primary Channel in single layer non-fire resistant systems only.

MFCCLIP



Siniat Phonistar Acoustic Hanger A heavy duty (up to 120kg) acoustic suspended ceiling hanger bracket.

PHONI



Siniat Phonissimo Acoustic Hanger A medium duty (up to 50kg) acoustic suspended ceiling hanger bracket.

PHONIMO

#### Fix



Siniat Drywall Screws (as appropriate) For mechanical fixing of boards into ceiling components.

See annex d: screw selection guide

# Insulation



Mineral wool insulation

### Finishing



Siniat Joint Tape Joint reinforcement in conjunction with Siniat Jointing Compounds.



Siniat Intumescent Acoustic Sealant Perimeter sealing to restrict smoke, sound and fire penetration to achieve quoted performances.



Siniat Compounds To finish joints between boards and bed corner beads prior to decorating. Ensures system performance.

See <u>annex b: product reference</u>



To seal plasterboard prior to decoration.

# System guidance

#### Frame

FC-MF-101S-Ceiling perimeter



- Siniat Suspended MF Ceiling systems use Siniat Metal Angle to suspend the framework between the soffit and Siniat Primary Channels.
- For single-board applications, the Siniat Metal Angle can be cut and bent for direct attachment to the substrate.
- For double or multi-board applications, an appropriate cleat by others must be used to secure the connection between the substrate and the Siniat Metal Angle.
- Siniat Edge Channel to be fixed to appropriate structure at perimeter of ceiling run and around any obtrusions within the ceiling, e.g. columns. Fix at max. 600mm centres using appropriate fixings.
- Siniat Metal Angle suspension hangers at maximum 1200mm centres along Primary Channel to be fixed to structural soffit with appropriate structural fixings by others.
- Hangers to be at maximum of 900mm from ceiling perimeter.

Siniat Primary Channels to be arranged at maximum centres (see table) according to expected loadings including system and board weight (as indicated in performance tables). Channels to be fixed to hangers using appropriate Siniat Wafer Head Screws.

Max. primary channel centres	Maximum loading: Including system and board weight
600mm	74kg/m²
900mm	50kg/m²
1200mm	35kg/m²

- Siniat Ceiling Channels at maximum 450mm centres for non-fire resistant systems. For fire resistant systems, please refer to the system tables for Siniat Ceiling Channel centres. Siniat Ceiling Channels to be located into Siniat Edge Channel and fixed at right angles to Siniat Primary Channel.
- Fixing of Siniat Ceiling Channel to Siniat Primary Channel to be made using appropriate Siniat Wafer Head Screws.
- Siniat Connecting Clips may only be used to connect Siniat Ceiling Channel to Primary Channel in non-fire resistant single board layer systems with no additional loadings. Siniat Connecting Clips to be alternated in direction to counteract any movement.
- Siniat Primary Channels may be spliced by overlapping profiles by a minimum 150mm and fixing back-toback with minimum two Siniat Wafer Head Screws.
- Siniat Ceiling Channels may be jointed by overlapping profiles by minimum 150mm and fixing with minimum four Siniat Wafer Head Screws.
- Control joints may be necessary in ceilings to accommodate stresses from structural expansion and contraction and should align with movement joints in the superstructure.

FC-MF-102M and 103M-Ceiling channel splicing



#### Insulation

Any insulation to be of type and thickness to achieve performance and installed in a continuous layer between primary channels and over ceiling channels and boards.

#### Boarding

FC-MF-201-Boarding layout - Single layer



FC-MF-202-Boarding layout - Double layer



- Siniat Suspended MF Ceiling system is suitable for single, double and multiple layer boarding.
- Boards to be installed so that bound edges of boards are perpendicular to ceiling channels.
- Bound edges do not require additional components for fixing.
- ▶ Board ends and joints to be centred over channels.
- Boards to be mechanically fixed to Siniat Edge Channel at 150mm centres using appropriate Siniat Drywall Screws.
   See <u>annex d: screw selection guide</u>.
- Boards to be mechanically fixed to Siniat Ceiling Channels at 230mm centres in centre of board, and at 150mm centres at cut edges using appropriate Siniat Drywall Screws.

See annex d: screw selection guide.

▶ Board joints to be staggered between layers.

#### Height change and junctions

FC-MF-501S-Junction of partition to ceiling (partition has no fire resistance performance)



FC-MF-502S-Junction of ceiling to partition (ceiling has no fire resistance performance)

Floors and Ceilings

#### FC-MF-503S-Change in ceiling height



 Abutting partitions to coincide with and fix to Siniat Ceiling Channel, install additional intermediate 'pick-up' channels if required.

#### FC-MF-504S-Bulkhead



Form 90° junction in ceiling by fixing Siniat Edge Channels at right angle with Siniat Ceiling Channel spanning vertically as required. Hangers to be positioned at maximum 150mm from change in height.

#### **Fixtures**

- Additional loads hung from suspended ceilings may impair system performance. Contact Siniat Technical Services for more information.
- Services running through ceiling void to be supported by structural soffit and not Siniat Suspended MF Ceiling System.

#### Penetrations

- M&E runs and other services to be pre-planned to minimise or eliminate penetrations through rated ceilings.
- Any penetrations must be fully sealed with Siniat Intumescent Acoustic Sealant or other fire and sound resisting material.

#### Finishing

- All board joints to be taped, jointed or finished according to guidance in <u>annex a1: taping and</u> jointing through to <u>annex a4: cove</u> to achieve system performances.
- Siniat Finish materials appropriate to board type to be used.

#### System continuity

- ▶ Full, imperforate system continuity to be maintained to achieve rated performances.
- Bead of Siniat Intumescent Acoustic Sealant to be applied to perimeter of all runs and in all other locations specified in Construction Detail Drawings unless a junction to another Siniat plasterboard intending to be finished with tape & joint.
- Siniat Intumescent Acoustic Sealant to seal all other acoustic or air paths to prevent fire/smoke spread and acoustic transmission.

#### Acoustic mass barrier ceilings

FC-MF-002S-Phonissimo Acoustic Hanger – general arrangement



FC-MF-004S-Phonistar Resilient Hanger – general arrangement



- For Acoustic Mass Barrier system configurations suspend frame from Siniat Phonistar or Siniat Phonissimo hangers at maximum 1200mm centres using M6 threaded rod by others.
- Siniat Phonissimo and Siniat Phonistar hangers are acoustically dampened, high strength hangers to support higher mass ceilings which offer the highest acoustic insulation.
- Siniat Heavy Gauge Primary Channel UT52/Y to be used instead of Siniat Primary Channel.



FC-MF-005M-Phonistar Resilient Hanger – assembly



FC-MF-003M-Phonissimo Acoustic Hanger – assembly

system guidance

# Siniat Suspended Acoustic Absorption MF Ceiling

The Siniat Creason MF Ceiling System is used for creating sound absorbing ceilings to control sound reverberation in larger spaces. Siniat Creason MF Ceilings combine the easy to install advantages of the Siniat Suspended MF Ceiling with the sound absorption capability of Siniat Creason Board.

Siniat Creason board is perforated in a range of patterns for attractive designs and reduction in the reflective surface of the board to limit echo or reverberation. Refer to the System Performance Tables on pages 11 to 12 for full performance details.

#### Where to use:

- Siniat Creason MF ceilings are used in commercial applications where large, hard-surfaced and uninterrupted spaces would otherwise suffer from echoing.
- Siniat Creason MF ceilings are also required for corridors and stairwells in residential blocks to reduce sound travel through the building.

Features	Benefits
Variable cavity depth	Cavity size can be optimised for service and insulation requirements
	Up to Class B acoustic absorption
Utilises Siniat Suspended MF framing	One set of components on site
	Easy to install
Creates a 'false ceiling'	Can be used to upgrade existing structures
Perforated boards in a range of patterns	Provides a range of aesthetic options to add variation in large spaces



## System components

#### **Boards**



Siniat Creason Board Perforated acoustic absorption board.

See <u>System performance tables, page 11 to 12</u>

#### Frame



Siniat Ceiling Channel Steel channel to support boards.

MFCC50



Siniat Primary Channel Steel channel to support Siniat Ceiling Channel.

MFCP44



Siniat Heavy Gauge Primary Channel Heavy duty steel channel to support Siniat Ceiling Channel.

UT52/Y



Siniat Connecting Clip Steel clip for joining Siniat Ceiling Channel to Siniat Primary Channel in single layer non-fire resistant systems only.

MFCCLIP



Siniat Edge Channel Steel channel used to form perimeter board support.

MFCE26

### Fix



Siniat Drywall Screws (as appropriate) For mechanical fixing of boards into ceiling components.

See annex d: screw selection guide



Siniat Metal Angle Multi-purpose galvanised metal section used as suspension hangers to support Siniat Primary Channels..

MFC2525, MFC2550, MFC2330

# Finishing



Siniat Joint Tape Joint reinforcement in conjunction with Siniat Jointing Compounds.



Siniat Intumescent Acoustic Sealant Perimeter sealing to restrict smoke, sound and fire penetration to achieve quoted performances.

Mineral wool insulation: Increases fire and acoustic insulation performance. (See performance tables supplied by others.)



Siniat Compounds To finish joints between boards and bed corner beads prior to decorating, Ensures system performance.

See annex b: product reference



Siniat Sealer To seal plasterboard prior to decoration.



# System guidance

See guidance in Siniat Suspended MF section and additional considerations given below:

#### Frame

FC-PG-101S-Creason Ceiling



- Siniat Connecting Clips may be used to connect Siniat Ceiling Channel to Edge Channel in all single layer Siniat Creason MF systems providing no additional loads are being carried.
- Control joints may be necessary in ceilings to accommodate stresses from structural expansion and contraction and should align with movement joints in the superstructure.
- Siniat Ceiling Channel to be at maximum 600mm centres to coincide with unperforated areas of board.

#### Insulation

Any insulation to be of type and thickness to achieve performance and installed in a continuous layer between primary channels and over ceiling channels and boards.

#### Boarding

FC-PG-201E-Creason board designs



#### FC-PG-501S-Creason Ceiling Height Change



#### Penetrations

- M&E runs and other penetrating services to be pre-planned to minimise or eliminate penetrations through rated ceilings.
- Any penetrations must be fully sealed with Siniat Intumescent Acoustic Sealant or other fire and sound resisting material.

#### Finishing

- All board joints to be taped, jointed or finished according to guidance in the <u>annex a1: taping and</u> jointing through to <u>annex a4: cove</u> to achieve system performances.
- Siniat Creason Board, once sealed, to be painted with rollers to prevent paint blocking tissue backing and reducing absorption capacity.
- Siniat Finish materials appropriate to board type to be used.
- Siniat Creason MF Ceiling system is suitable for single layer boarding.

- Select Siniat Creason Board according to acoustic performance required and desired perforation pattern.
- Siniat Creason boards to be arranged to achieve desired board pattern. Siniat Creason Boards and Siniat Boards may be mixed for decorative effect however acoustic absorption only occurs where board, void and insulation match the system performance.
- Boards to span across Siniat Ceiling Channels.

#### **GB** Orderline

For placing orders, delivery enquiries, local stockists etc. 0800 373 636 (select option 1) orderline@siniat.co.uk

#### Customer Support

0800 373 636 (select option 2) customer.support@siniat.co.uk

#### **Technical Services**

Advisory service. 01275 377 789 or 0800 145 6033 (select option 1) technical@siniat.co.uk

#### The Training Centre

For all drywall training needs from basic introduction to advanced skills and development. 01275 377 581 training@siniat.co.uk

Please check that this is the current version by visiting the Siniat/Promat websites. For archived versions please contact technical services.

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