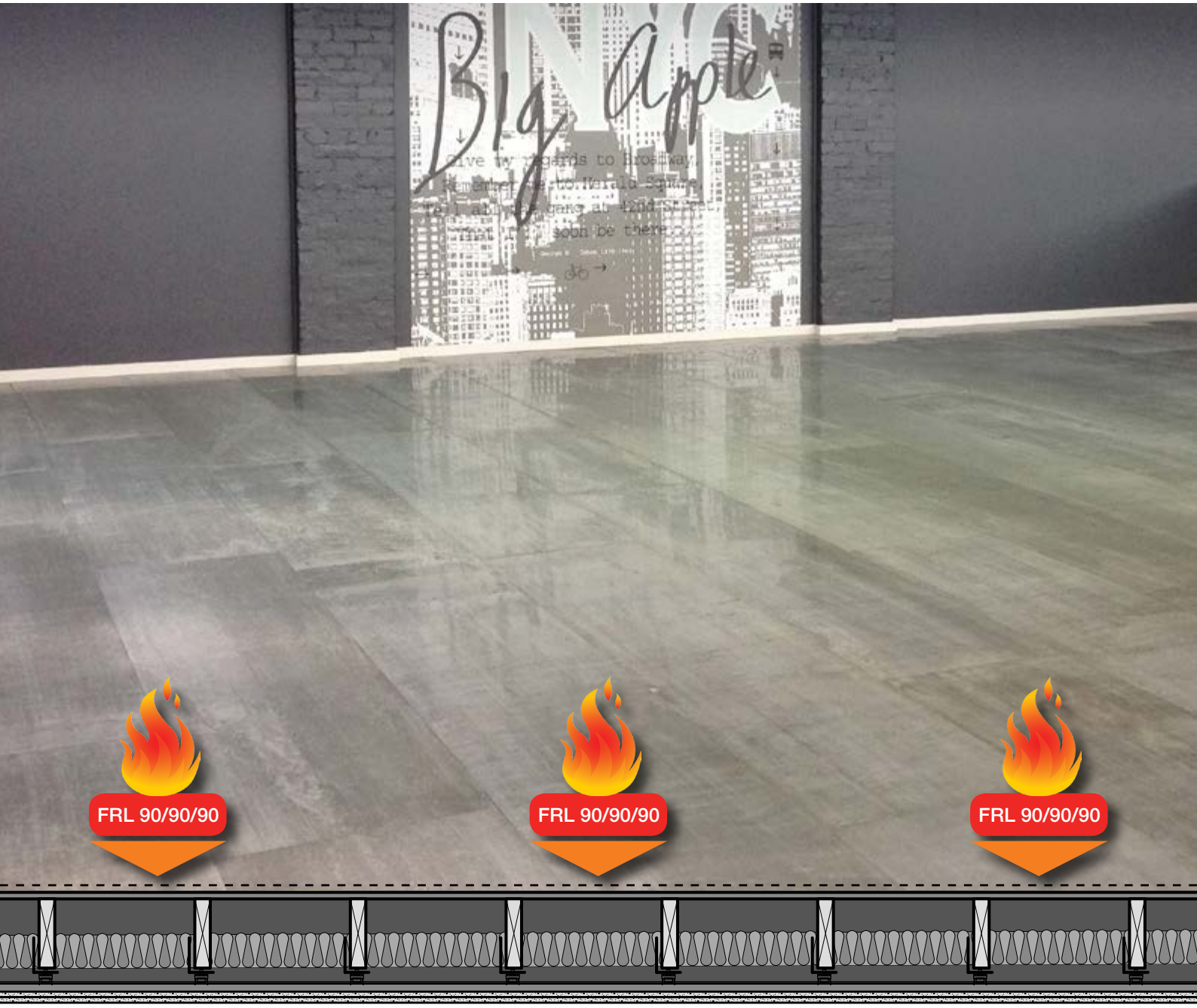
INEX FLOOR™

UBIQ

FRL **DOWN** LIGHTWEIGHT FLOORING SYSTEM



UBIQ

INEX BOARDS™

FLOORING & CLADDING SOLUTIONS

INEX>FLOOR is a lightweight yet incredibly strong multi-purpose flooring material for all forms of lightweight construction. It begins as a cost effective substrate flooring for all applications such as bathrooms, living areas or external deck; but can also be used as a finished floor itself.

No speciality tools are required to fix **INEX>FLOOR**, which can be cut like any other fibre cement sheet and does not need to be pre-drilled before fixing. Yet at only 16mm or 19mm thick it outperforms any other comparable product for strength.

FRL in the DOWN Direction

On either a timber or steel frame **INEX>FLOOR** can be used to deliver Fire Resistance Level (FRL) performance in the DOWN direction. This, in conjunction with its exceptional acoustic performances makes **INEX>FLOOR** ideally suited for multi-level lightweight construction.

Whether your selection of construction materials or floor systems be determined by; **Time & Cost, Performance, Quality or Space Saving** – **INEX>FLOOR** delivers.

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INEX>FLOOR FRL DOWN

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FRL DOWN FLOOR SYSTEMS - ADVISORY NOTE

FRL in the UP direction

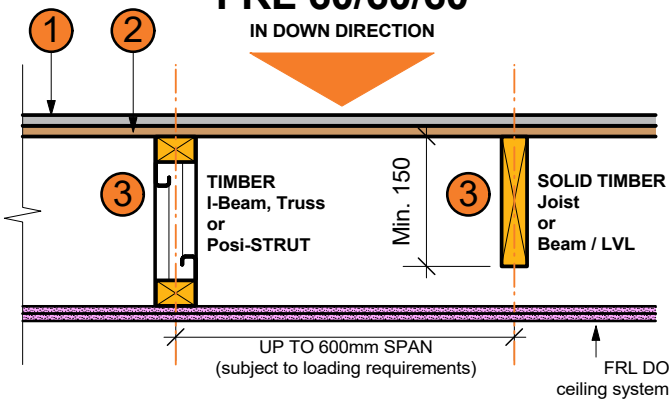
Deemed to Satisfy Fire Resistance Level (FRL) requirements under the Building Code of Australia (BCA) are met by Fire Tests and Assessments in accordance with AS *1530.4-2005 Methods of fire tests on building materials, components and structures Part 4: Fire resistance tests of elements of construction.* Section 4 of this standard deals with; F*LOORS, ROOFS AND CEILINGS, HORIZONTAL SEPARATING ELEMENTS. Clause 4.7 SPECIMEN ORIENTATION* requires that: *The specimen shall be exposed from fire from* ***below*** (emphasis added). This is in the UP direction.

FRL in the DOWN direction

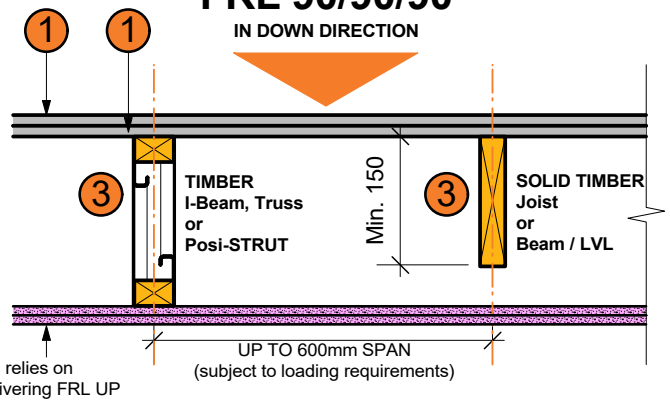
Notwithstanding the above UBIQ recognises that there are increasing industry requirements for an FRL in the DOWN direction, particularly driven by the increased number of residential and commercial buildings being built with lightweight construction. Accordingly UBIQ has developed a number of FRL DOWN floor systems to assist Builders and Certifiers in their selection of suitable materials for light-weight construction.

FRL DOWN SYSTEMS – TIMBER JOISTS

FRL 60/60/60

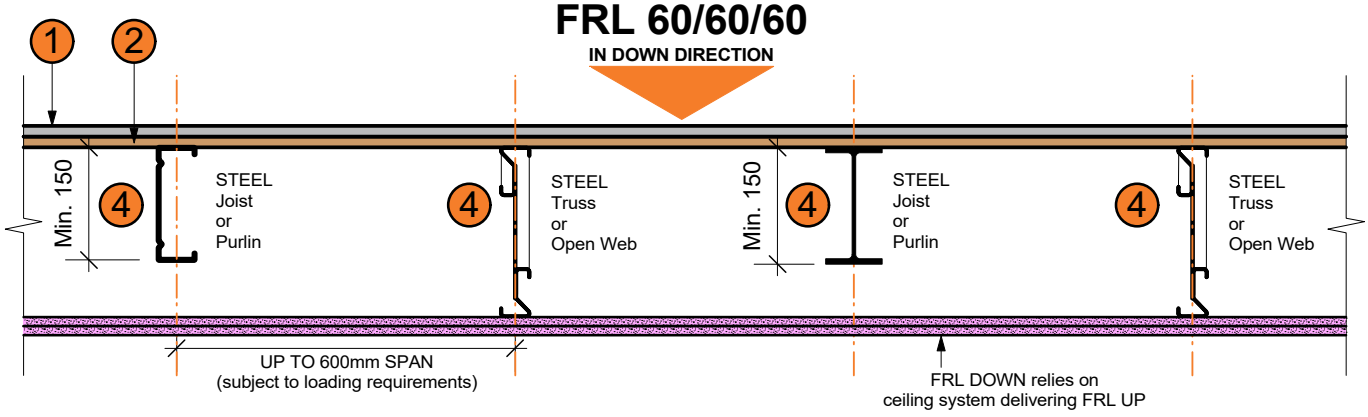


FRL 90/90/90

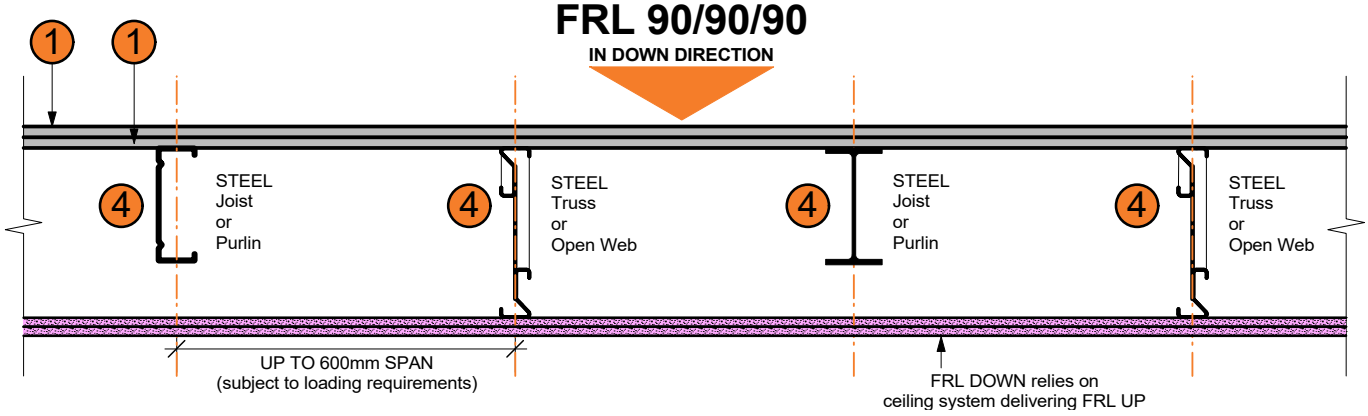


FRL DOWN SYSTEMS – STEEL JOISTS

FRL 60/60/60



FRL 90/90/90



1. INEX>FLOOR19 -19mm THICK
2. 19mm THICK T&G PARTICLEBOARD or 19mm THICK T&G STRUCTURAL PLYWOOD
3. Min. 150mm DEEP TIMBER FLOOR STRUCTURE AS NOTED TO AS 1684
4. Min. 150mm DEEP STEEL FLOOR STRUCTURE AS NOTED to AS 4600 or AS 4100
5. PROPRIETARY CEILING SYSTEM DELIVERING AT LEAST THE SAME FRL AS THAT FROM ABOVE

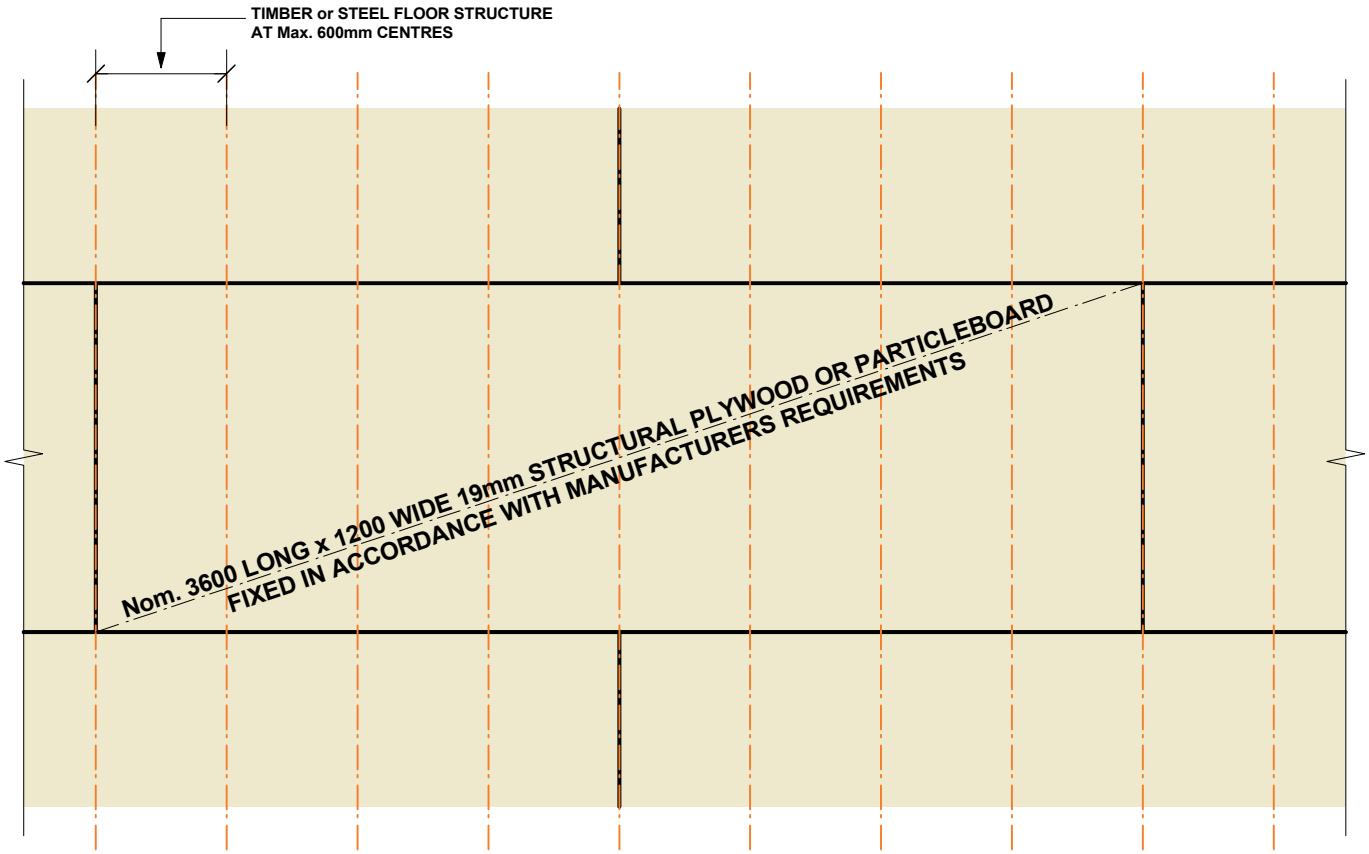
SPAN & LOADING PROPERTIES (1mm DEFLECTION LIMIT)

INEX>FLOOR SYSTEMS	JOIST SPACING (mm)			
	450		600	
	CONCENTRATED ACTION (kN)	UNIFORMLY DISTRIBUTED LOAD (kPa)	CONCENTRATED ACTION (kN)	UNIFORMLY DISTRIBUTED LOAD (kPa)
INEX>FLOOR19+ INEX>FLOOR19	8.4	63.0	3.4	14.0
INEX>FLOOR+PARTICLEBOARD19	5.6	45.5	2.5	10.9

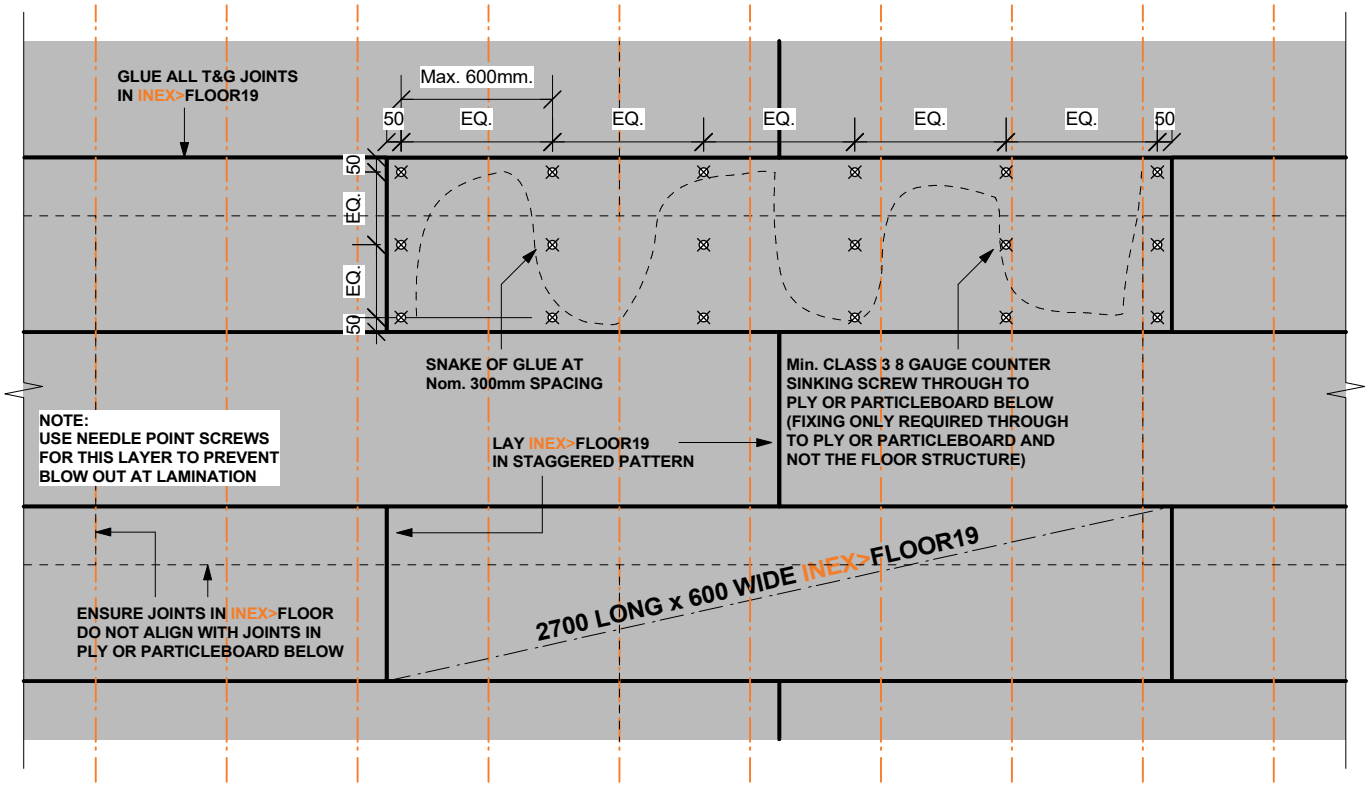
INEX>FLOOR, with its intrinsic high strength and high fire resistance & acoustic performances, is well placed to deliver appropriate systems to meet the needs of lightweight construction in buildings. The following pages provide FRL DOWN performances when using **INEX>FLOOR** over timber or steel joists. Full floor system options are also provided, complete with acoustic insulation performances.

Check our website for any updates before installation

FLOOR SYSTEM ASSEMBLY FRL 60/60/60



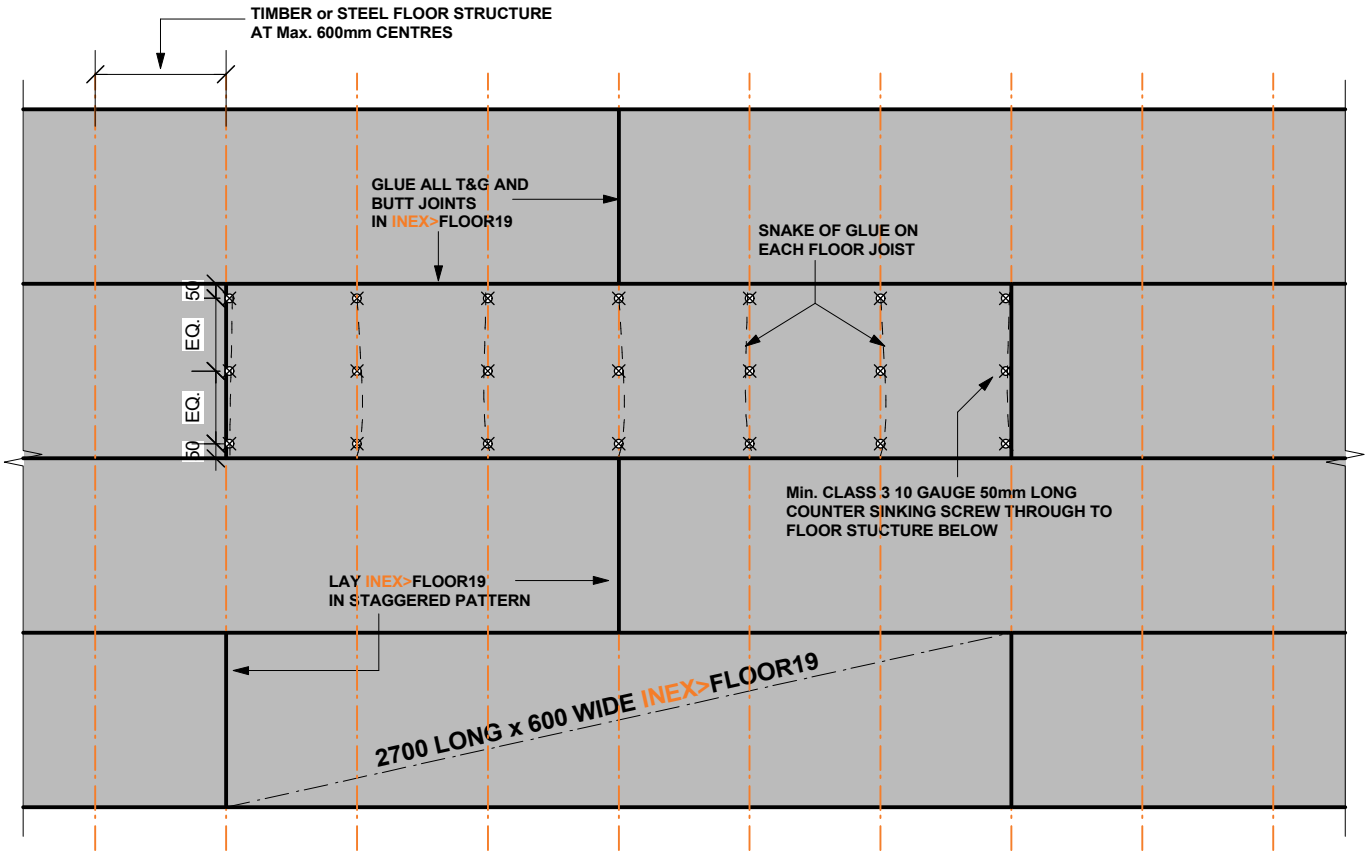
LAYER 1 - 19mm PLYWOOD OR 19mm PARTICLEBOARD SUBSTRATE



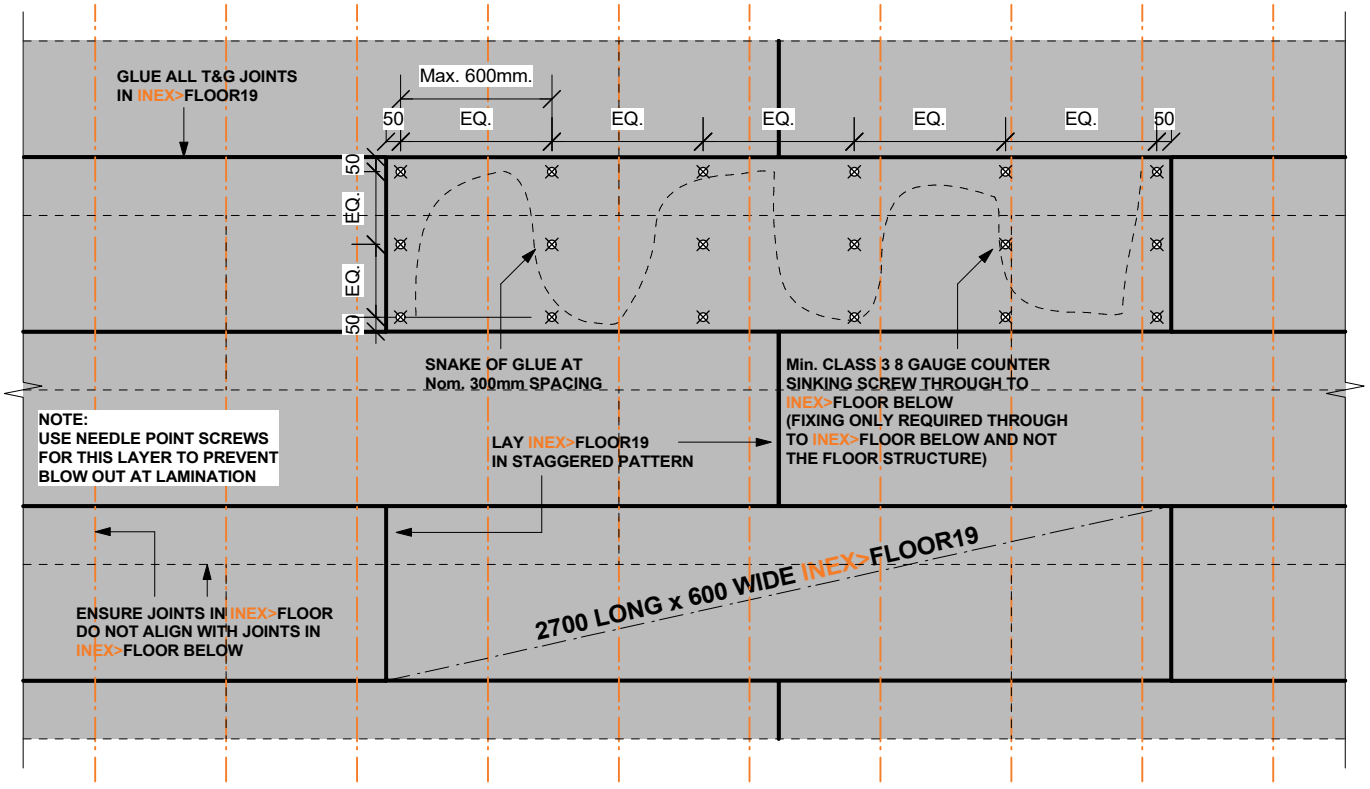
NOTE: LAY INEX>FLOOR ROUGH SIDE UP IN ALL WET AREAS or WHERE WATERPROOF MEMBRANE IS REQUIRED

LAYER 2 - 19mm THICK INEX>FLOOR19

FLOOR SYSTEM ASSEMBLY FRL 90/90/90



LAYER 1 - 19mm INEX>FLOOR19

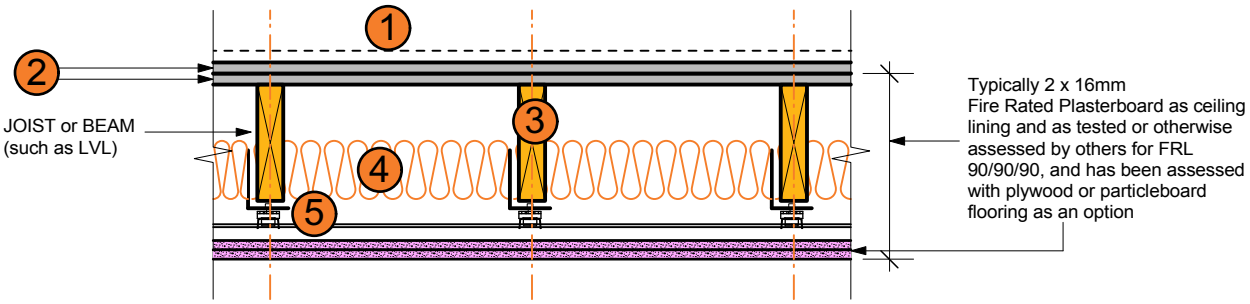


NOTE: LAY INEX>FLOOR ROUGH SIDE UP IN ALL WET AREAS or WHERE WATERPROOF MEMBRANE IS REQUIRED

LAYER 2 - 19mm THICK INEX>FLOOR19

FRL DOWN FLOOR SYSTEMS - TIMBER JOISTS

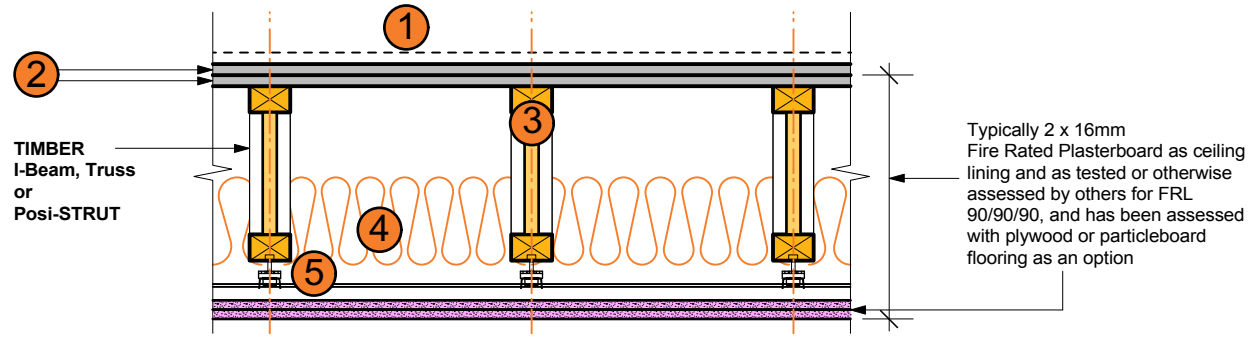
Systems Suitable for Class 2 or 3 Buildings, Type A Construction



SYSTEM	JOIST (mm)	INEX>FLOOR (mm)	FIRE RATING (FRL)	AIRBORNE SOUND INSULATION (PKA)	IMPACT SOUND INSULATION (PKA)	
					Timber + Underlay	Carpet + Underlay
				Rw / Rw+Ctr	Ln,w / Ln,w+Ci	Ln,w+Ci
UBIQ FL-08 (FRL/D)	150	19mm	60/60/60 or 90/90/90 UP or DOWN	61 / 54	55 or less	45 or less
	200			62 / 56	53 or less	45 or less
	300			62 / 58	51 or less	45 or less

** Capable of meeting AAAC 4 Star Rating (Ln,w 50 or less) with acoustic detailing to underlay specification.

SOLID TIMBER JOISTS, LVL or GLULAM



SYSTEM	JOIST (mm)	INEX>FLOOR (mm)	FIRE RATING (FRL)	AIRBORNE SOUND INSULATION (PKA)	IMPACT SOUND INSULATION (PKA)	
					Timber + Underlay	Carpet + Underlay
				Rw / Rw+Ctr	Ln,w / Ln,w+Ci	Ln,w+Ci
UBIQ FL-29 (FRL/D)	200	19mm	60/60/60 or 90/90/90 UP or DOWN	62 / 58	53 or less	45 or less
	300			63 / 58	51 or less	45 or less
	400			63 / 58	51 or less	45 or less

** Capable of meeting AAAC 4 Star Rating (Ln,w 50 or less) with acoustic detailing to underlay specification.

OPEN WEB TRUSSES

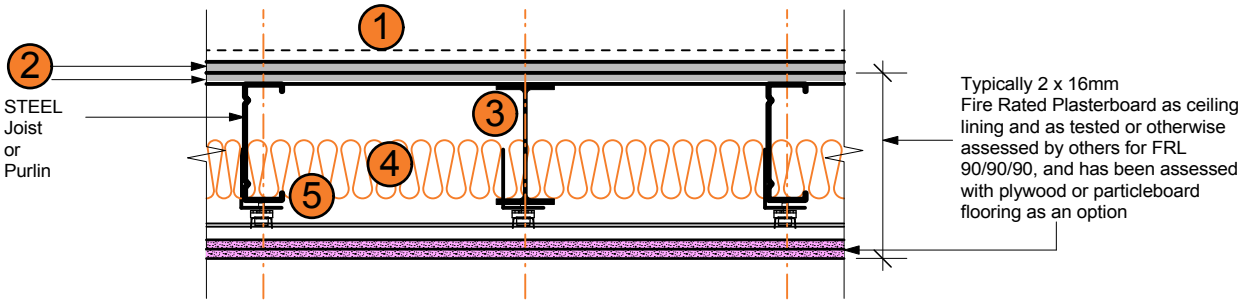
1. FLOOR FINISH VARIES: REFER TO NOTES BELOW.
2. INEX **FLOOR19** - 19MM THICK
3. TYPICAL TIMBER FLOOR JOISTS AS NOTED
4. INSULATION - Nom. 145mm DEEP REFER NOTES BELOW
5. PROPRIETARY CEILING SYSTEM WITH RESILIENT ACCOUSTIC MOUNTS: Nom. 65mm DEEP

NOTES

- Tables provide FRL performances to AS1530.4 and predicted sound insulation by UBIQ's acoustic consultants - PKA Acoustic Consulting PTY LTD.
- TIMBER + UNDERLAY = minimum 15mm engineered timber floor with minimum 5mm rubber acoustic underlay and following manufacturer's isolation detail.
- CARPET + UNDERLAY = quality carpet with minimum 8mm foam underlay.
- All predictions given for floor joists at 450mm centres.
- Insulation options are; 145mm R3.0 7.5kg/m3 Knauf 'Earthwool' ceiling batts, or 145mm R2.7 7.0 kg/m3 Bradford Gold ceiling batts, or equivalent.
- Fire Resistance Levels (FRLs) in the UP direction are provided using FRLs delivered by commonly available fire resisting plasterboards. FRL performances should be confirmed with the manufacturer of the fire resisting plasterboard selected.

FRL DOWN FLOOR SYSTEMS - STEEL JOISTS

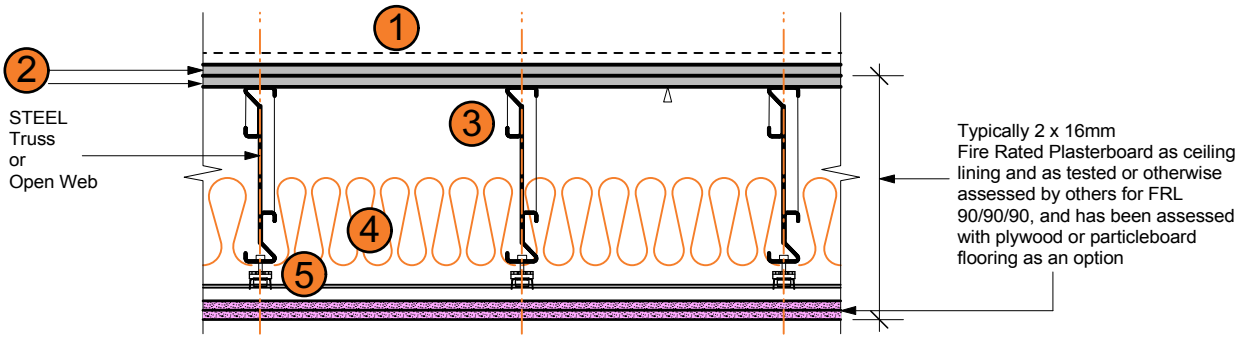
Systems Suitable for Class 2 or 3 Buildings, Type A Construction



SYSTEM	JOIST (mm)	INEX>FLOOR (mm)	FIRE RATING (FRL)	AIRBORNE SOUND INSULATION (PKA)	IMPACT SOUND INSULATION (PKA)	
					Timber + Underlay	Carpet + Underlay
				Rw / Rw+Ctr	Ln,w / Ln,w+Ci	Ln,w+Ci
UBIQ FL-17 (FRL/D)	150	19mm	90/90/90 UP or DOWN EWFA 38725600	62 / 54	55 or less	45 or less
	200			62 / 56	53 or less	45 or less
	300			62 / 58	51 or less	45 or less

** Capable of meeting AAAC 4 Star Rating (Ln,w 50 or less) with acoustic detailing to underlay specification.

ROLLED STEEL BEAMS or PURLINS



SYSTEM	JOIST (mm)	INEX>FLOOR (mm)	FIRE RATING (FRL)	AIRBORNE SOUND INSULATION (PKA)	IMPACT SOUND INSULATION (PKA)	
					Timber + Underlay	Carpet + Underlay
				Rw / Rw+Ctr	Ln,w / Ln,w+Ci	Ln,w+Ci
UBIQ FL-28 (FRL/D)	200	19mm	90/90/90 UP or DOWN EWFA 38725600	62 / 58	53 or less	45 or less
	300			63 / 58	51 or less	45 or less
	400			63 / 58	51 or less	45 or less

** Capable of meeting AAAC 4 Star Rating (Ln,w 50 or less) with acoustic detailing to underlay specification.

OPEN WEB TRUSSES

1. FLOOR FINISH VARIES: REFER TO NOTES BELOW.
2. **INEX>FLOOR19** - 19MM THICK
3. TYPICAL STEEL FLOOR JOISTS AS NOTED
4. INSULATION – Nom. 145mm DEEP REFER NOTES BELOW
5. PROPRIETARY CEILING SYSTEM WITH RESILIENT ACCOUSTIC MOUNTS: Nom 145mm DEEP

NOTES

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FLOORING & CLADDING SOLUTIONS

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We advise all enquires to source the most current brochures and/or technical material available online at www.ubiq.au.