



A member of LIVE Consulting Group

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Date of Issue

IGNIS ADVISORY NOTE

Evaluation No. IGNS-6290-01 Issue 00 Revision 00 [2018]

ResCom System RC/TS 60 and RC/TS 90

Ignis Solutions has been engaged to provide guidance on the attached wall systems. The BCA through Specification A2.3 Clause 2 (b) requires the building element to be identical with a prototype that has been submitted to the standard fire test or an equivalent or more severe test.

Ignis Solutions has previously evaluated the ResCom wall systems in Ignis report 4241 I02R02 dated 26 September 2017. This engineering certificate should be read in conjunction with the above referenced Ignis report. This engineering certificate serves as a certificate from professional engineer in accordance with Clause A2.2 (a)(iii) of the National Construction Code Volume One Building Code of Australia.

The RC/TS 60 wall system consists of 10mm ResCom Board on either side of a double stud designed wall system with a 50mm cavity.

The RC/TS 90 wall system consists of 12mm ResCom Board on either side of a double stud designed wall system with a 50mm cavity.

With respect to the ResCom tested wall systems the following relates to the selected systems.

SGS is an international testing service. Their Shanghai test facility completed testing on the ResCom Board within a wall installation.

The test was undertaken on 03 June 2015 in report SHCCM150401181 with the wall set up being 10mm thick ResCom Board on either side of a 75mm lightgage steel joist and 50kg/m³ mineral wool insulation. The following results were produced:

Regulatory Indices:	
Structural adequacy	-
Integrity	90 minutes
Insulation	67 minutes

Testing undertaken by Intertek Shanghai testing facility to ASTM E119-16a where the equivalent standard fire curve was used in the boards evaluation.

The test was undertaken on 19 December 2016 in report 160929005SHF-BP-1 with the wall set up being 12mm thick ResCom Board on either side of a 75mm steel studs at nominally 600mm centres and 180kg/m³ Rockwool insulation. The following results were produced:

Regulatory Indices:	
Structural adequacy	-
Integrity	180 minutes
Insulation	90 minutes



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The RC/TS 60 wall system with 10mm ResCom Board on either side of a double stud designed wall system with a 50mm cavity with a minimum of 75mm steel studs with a 1.15 BMT and 50kg/m³ mineral wool insulation will achieve an FRL of at least -/60/60.

The RC/TS 90 wall system with 12mm ResCom Board on either side of a double stud designed wall system with a 50mm cavity with a minimum of 75mm steel studs with a 1.15 BMT and 180kg/m³ mineral wool insulation will achieve an FRL of at least -/90/90.

The structural elements providing structural adequacy provided the structural system is designed by an appropriately qualified structural engineer

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Managing Director

Chartered Professional Engineer

CPEng, NER (Fire Safety / Mech) 2590091, RPEQ 11498, BPB-C10-1875, EF-39394

MFireSafety (UWS), BEng (UTS), GradDipBushFire (UWS), DipEngPrac (UTS), DipEng (CIT)



ResCom®

High Performance Board

System RC/TS 60

Non Load Bearing / Double Stud
Timber / Steel Wall Frame

FRL - / 60 / 60
Report by Ignis Solutions
Certification No.

Acoustic Rating R_w 61 C_{tr} 50
Certification by Cogent Acoustics
Project 18009 System 4

SYSTEM COMPONENTS:

R2 Non - Combustible Batts
10 mm ResCom Wall Board
Fire Rated Sealant

NOTES:

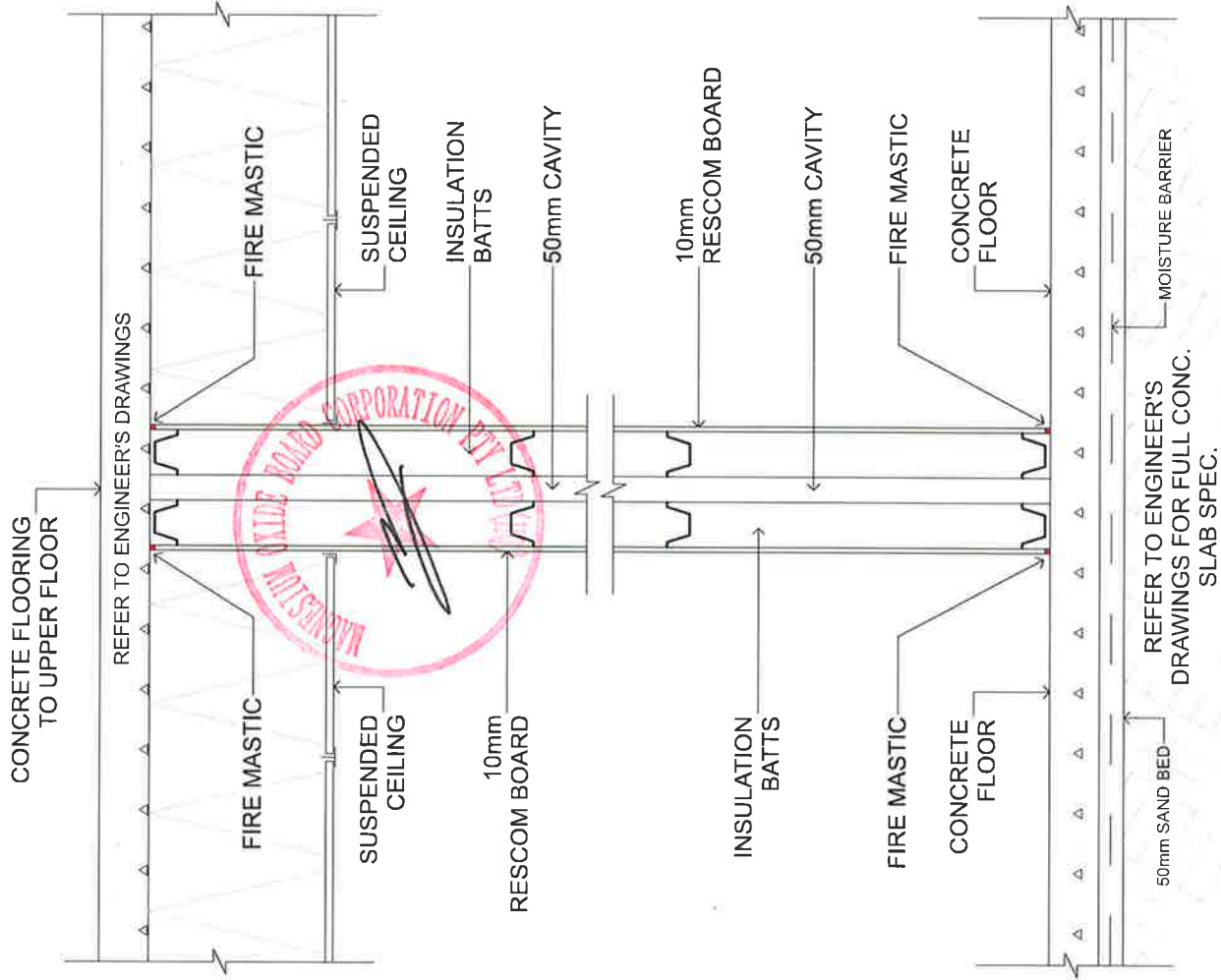
Metal framing to be installed in accordance with
BCA Volume 2
The size of steel stud should be determined by a
professional engineer.
To resist all applied loads

To be in accordance with AS4600, AS1684 and AS1720.1,
the BCA and all relevant standards.
To assume no axial strength contribution from wall linings. Some
wall systems will have their axial load capacities reduced.
For steel, this is due to the steel weakening at temperature

INSTALLATION INSTRUCTION

- The cavity between frames is to be 50mm.
- R2 insulation batts are to be installed in both frames as per manufactures installation instructions.
- A 5mm bead of fire rated sealant is to be run down the frames before fixing the ResCom® wall board, ensuring the whole length of the studs, noggin's and plates are covered.
- When fixing the ResCom® wall board, a 10mm gap is to be left between:
 - a) the floor and the bottom of each board and
 - b) the ceiling and the top of each board.
 The gaps are to be filled with a fire rated sealant.
- ResCom® wall board is to be fixed to the outside of each frame using screws that are non-corrosive, class 3 to 5, 8 gauge x 40mm self-drilling countersunk type. Screws are to finish approximately 0.5mm below the surface of the board.
- Screws must be fixed at 300mm centres. On sheet corners, keep the first screw 50mm from the edge to avoid breakage of the sheet and then 12-15mm from sheet perimeter edges.
- All joints and screw holes are to be filled and finished with an approved jointing compound as per manufactures instructions.
- Where two sheets do not meet on a stud back blocking is a requirement. Back blocking can be a 150mm wide board of ResCom® wall board, the same thickness as the installed board, fixed with a full length bead of fire rated sealant and screws fixed as per wall instructions.

**IF UNSURE OF INSTALLATION INSTRUCTIONS
REFER INSTALLATION MANUAL: REVISION 6**



System RC/TS 90

Non Load Bearing / Double Stud
Timber / Steel Wall Frame

FRL - / 90 / 90

Report by Ignis Solutions
Certification No.

Acoustic Rating R_w 61 C_r 50
Certification by Cogent Acoustics
Project 18009 System 4

SYSTEM COMPONENTS:

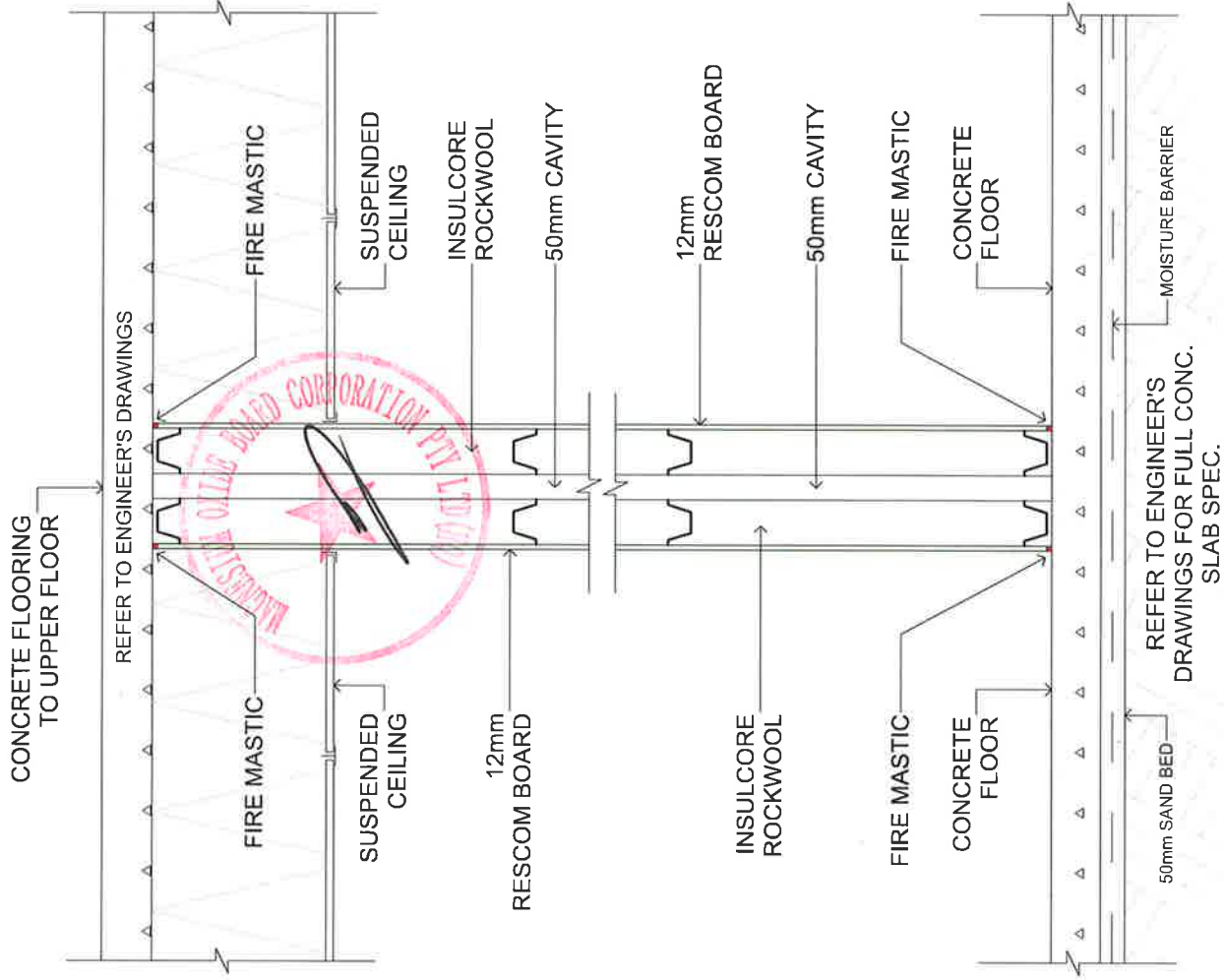
InsulCore Rockwool 80kg (supplied by ResCom)
12 mm ResCom Wall Board
Fire Rated Sealant

NOTES:

Metal framing to be installed in accordance with
BCA Volume 2
The size of steel stud should be determined by a
professional engineer.
To resist all applied loads

To be in accordance with As4600, AS1684 and AS1720.1,
the BCA and all relevant standards.

To assume no axial strength contribution from wall linings. Some
wall systems will have their axial load capacities reduced.
For steel, this is due to the steel weakening at temperature



REFER TO ENGINEER'S DRAWINGS FOR FULL CONC. SLAB SPEC.

SCALE 1:10

TENANCY SEPERATION DETAIL

INSTALLATION INSTRUCTION

- The cavity between frames is to be 50mm.
- R2 insulation batts are to be installed in both frames as per manufactures installation instructions.
- A 5mm bead of fire rated sealant is to be run down the frames before fixing the ResCom® wall board, ensuring the whole length of the studs, noggins and plates are covered.
- When fixing the ResCom® wall board, a 10mm gap is to be left between:
 - the floor and the bottom of each board and
 - the ceiling and the top of each board.
 The gaps are to be filled with a fire rated sealant.
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- All joints and screw holes are to be filled and finished with an approved jointing compound as per manufactures instructions.
- Where two sheets do not meet on a stud back blocking is a requirement. Back blocking can be a 150mm wide board of ResCom® wall board, the same thickness as the installed board, fixed with a full length bead of fire rated sealant and screws fixed as per wall instructions.

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REFER INSTALLATION MANUAL: REVISION 6