Burton
INDUSTRIES

INSULATED PANEL CONSTRUCTION

MANUFACTURERS OF PREFABRICATED COOLROOMS AND SANDWICH PANEL CONSTRUCTIONS

Technical Data

- Insulated
- Cyclone tested
- Lightweight
- Strong
- Easily Mounted
- Demountable
- Vermin proof

Australian Standard

The expanded Polystyrene insulating core (EPS) of Burton panels possesses the properties designated under Australian Standard 1366, Part 3-1992. EPS contains no Fluorocarbons.

Panel Listings

0.6mm CRP Colourbond (R) prepainted steel most commonly used. (off white, 25% gloss). Alternative colours and lining material options available.

Mill finish aluminium trims standard.

Panel Adhesive

Panel linings bonded to EPS core with synthetic thermo-setting polyurethane adhesive creating a permanently stable panel under a wide range of conditions and temperatures, thereby avoiding the adverse softening and deforming tendencies often synonymous with thermo plastic adhesives.

Panel Dimensions

Width 1200mm Standard

Length manufactured to customer's requirements and only limited to transport constraints.

Thickness as per general properties table.

Panel Assembly

Prefabricated panels are assembled and sealed to form an effective vapour barrier. No framework or stud system is used in this construction system. The high strength to weight ratio of Burton panel generally allows wall construction without the need for load bearing foundations. A steel framed roof is normally required where panels are used for ceiling/roof construction in large buildings.

Elevated Surface Temperature

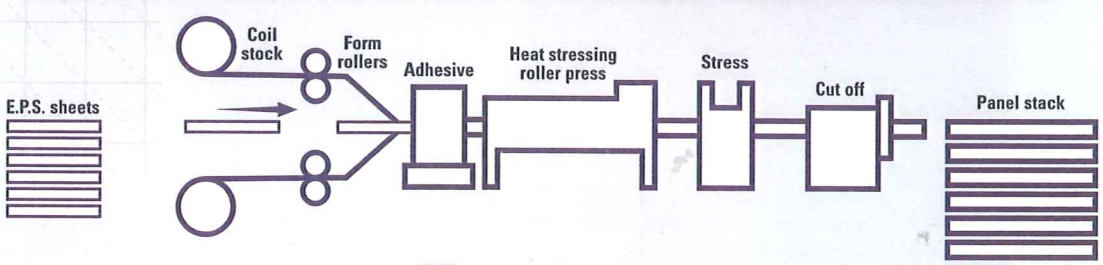
Maximum continuous surface temperature is 76.7°C, although Burton panel can be exposed to higher temperatures for short periods without affecting its properties.

General Properties of Burton Panels

Thickness (mm)	Mass Kg/M² (0.6-C'Bond)	Thermal Performance (26°C) S.L.Grade EPS		Temperature Range and End Use Suitability	Maximum Ceiling Span (Unsupported)	Maximum Wall Height (Unsupported)
		U.Value (W/M²K)	R.Value (M²K/W)			
50	11.00	0.76	1.32	16°C Upwards Air Conditioned Areas	3600	3600
75	11.35	0.51	1.96	0°C to 6°C Chillers/Coolrooms	4400	4800
100	11.70	0.38	2.63	-15°C to 0°C Freezers	5000	5800
125	12.05	0.30	3.33	-20°C to -15°C Freezers	5600	6400
150	12.40	0.25	3.99	-28°C to -20°C Low Temp Holding Rooms	6000	7000
175	12.75	0.22	4.54	-28°C to -20°C Low Temp Holding Rooms	6400	7600
200	13.10	0.19	5.26	-40°C to -28°C Blast Freezers	6700	8200
250	13.45	0.15	6.66	-40°C to -28°C Blast Freezers	7300	9200

NB. Above specifications are intended as an indicative guide only and subject to fluctuation.

Schematic Diagram of Panel Production on Continuous Laminating Machine.



Burton Industries

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Here's the truth about EPS:

1. The EPS panel system offers a cost effective answer to rising construction costs.

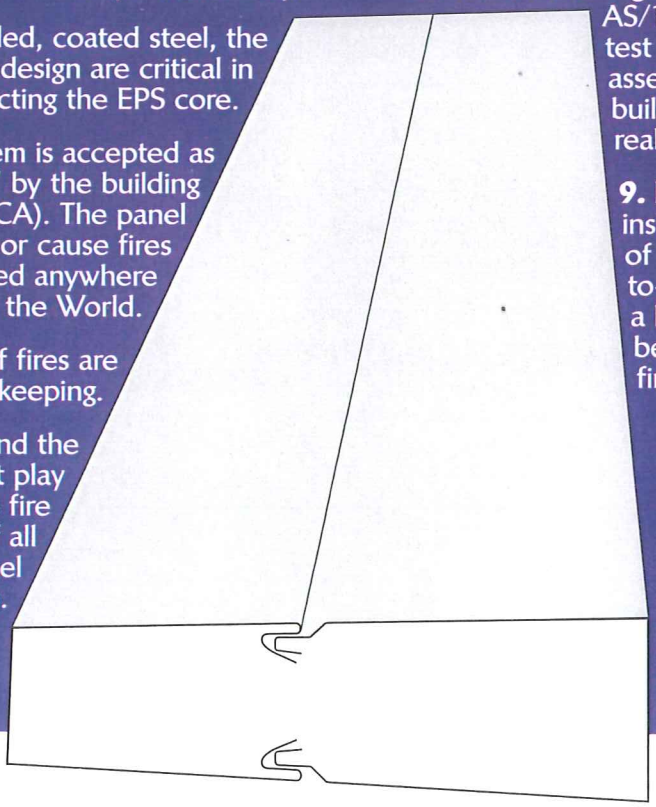
2. Interlocking panel system ensures installation is quick and easy.

3. Fully bonded with rolled, coated steel, the joint details and design are critical in protecting the EPS core.

4. The EPS panel system is accepted as 'deemed-to-satisfy' by the building code of Australia (BCA). The panel system does not start or cause fires and has not been banned anywhere in the World.

5. A high proportion of fires are caused by bad house keeping.

6. Installation methods and the structural support play significant role in the fire performance of all composite sandwich panel systems.



7. The core material is a self extinguishing grade EPS conforming with Australian Standard AS 1366.3.

8. All building materials, not just EPS are assessed according to the room fire test – AS/1SO9705. This large scale fire test was introduced to accurately assess the performance of all building materials in a real-life fire situation.

9. EPS panel systems when installed correctly are capable of the best possible reaction-to-fire performance, indicating a low likelihood of the material becoming involved in a growing fire.

The EPS panel system is the economic, fit for purpose insulated panel system in Australia.
It is estimated that over the past 50 years, more than 100 million m^2 of EPS panel has been installed.

EPS panels have been preferred for its many benefits including:

- easy and quick to install
- excellent load and span capabilities
- significant savings in site installation costs
- panel comes in a range of aesthetically pleasing colours
- standard cover width of 1200mm

- Panel thicknesses from 38mm to 300mm
- energy saving thermal insulation
- superior air tightness for controlled environments
- good reaction to fire properties
- durable, long lasting, stood the test of time in the extremes of the of the harsh Australian climate.

Temperature controlled manufacturing, storage or food processing facilities are ideal applications for the EPS panel system.
The truth is that EPS panel system continue to be an accepted solution, now and into the future.

Right Panel. Right Place. Right Application.

EPS PANEL SYSTEMS

BRANZ
BUILDING ON KNOWLEDGE

Fire Test Certificate

This is to certify that the specimen described below has been examined by BRANZ Ltd on behalf of

EPS Panel Division, PACIA
and
CSIRO Manufacturing and Infrastructure Technology

Test standard: AS ISO 9705

Specimen name: Sandwich Panel with an Expanded Polystyrene (EPS) core

Specimen description:

Insulating sandwich panel, with nominal thickness 150 mm or less.

Panel core of Class S or SL (to AS 1366.3) expanded EPS.

Clad both sides with "Colorbond" steel, thickness 0.4 mm or greater.

Panel to panel corner junctions require aluminium angles fixed to the steel skins at not more than 300mm centres, with aluminium rivets.

Orientation: N/A

Full descriptions of the test specimen and the complete results of the examination are given in the following Test Reports and Assessments:

CMIT-(c)-2003-201 CMIT-(c)-2004-089 CMIT-(c)-2004-368 CMIT-(c)-2004-469
BRANZ FAR 2489

Conditions of laboratory registration by IANZ do not allow assessments expressed by the Registered Laboratory to be covered by IANZ.

Regulatory authorities are advised to examine test reports and assessments before approving any product.

The assessed results were as follows:

Group Number 2 in accordance with BCA 2005 specification Cl.10a

Smoke Growth Rate Index ($SMOGRA_{RC}$) < 100.

Test Dates: 15/9/03, 23/1/04, 6/2/04, 6/9/04
22/9/04, 24/11/04, 6/12/04

Test Supervisor(s): N/A

This Certificate issued: 29 April 2005

Certificate Number: 373

Colleen Wade, Principal Scientist

Fire Testing Supervisor
For BRANZ Limited

FOAMEX GROUP PTY. LTD.
A.C.N. 109 683 909
31-33 Gatwick Road, Bayswater Nth. Vic. 3153 Australia
Telephone (03) 9720 4200 Facsimile: (03) 9729 5050

Neil Burton
Burton Industries
Colchester Rd
Bayswater North 3153

RE OZONE DEPLETING SUBSTANCES

Dear Neil,

We write to advise that Styroboard EPS supplied by Foamex does not contain any Fluorocarbons or modified Fluorocarbons or Ozone Depleting Substances, nor are any used in its manufacture.

Styroboard EPS does not contain any Volatile Organic Compounds (VOC's). Pentane which is a Volatile Organic Compound is used in its manufacture but is lost from the product during manufacture and post manufacture curing.

Product		
Styroboard EPS All Classes	**Ozone depleting substances content**	**Ozone depleting substances used in manufacture**
	0	0
	VOC Content	**VOC used in manufacture**
Styroboard EPS Class SL	0	0.8g/l

If we can be of any further assistance please call me on 03 9720 4200 or 0408 170 317.

Yours truly,

Russell Bielenberg
Group manufacturing and
Product Development Manager

Burton INDUSTRIES PTY LTD A.C.N. 067 219 612

MANUFACTURERS OF PREFAB COOLROOMS AND SANDWICH PANEL CONSTRUCTIONS

NOISE ATTENUATION PROPERTIES

Louis Challis & Associated (Consulting Accoustical & Vibration Engineers of Sydney) performed tests to determine the Field Sound Transmission Loss and Sound Transmission Class (STC) for a 100 mm thick coolroom panel. Tests were performed in accordance with ASTM E336-1977 and A51276-1979.

FIELD TRANSMISSION LOSS

One third Octave Bound Centre Frequency (Hz)	Field Transmission Loss (dB)
100	16.5
125	15
160	18
200	17.5
250	20.5
315	20.5
400	22
500	22
630	21
800	13.5
1000	17.5
1250	33.5
1600	42
2000	48.5
2500	50.5
3150	50
4000	53

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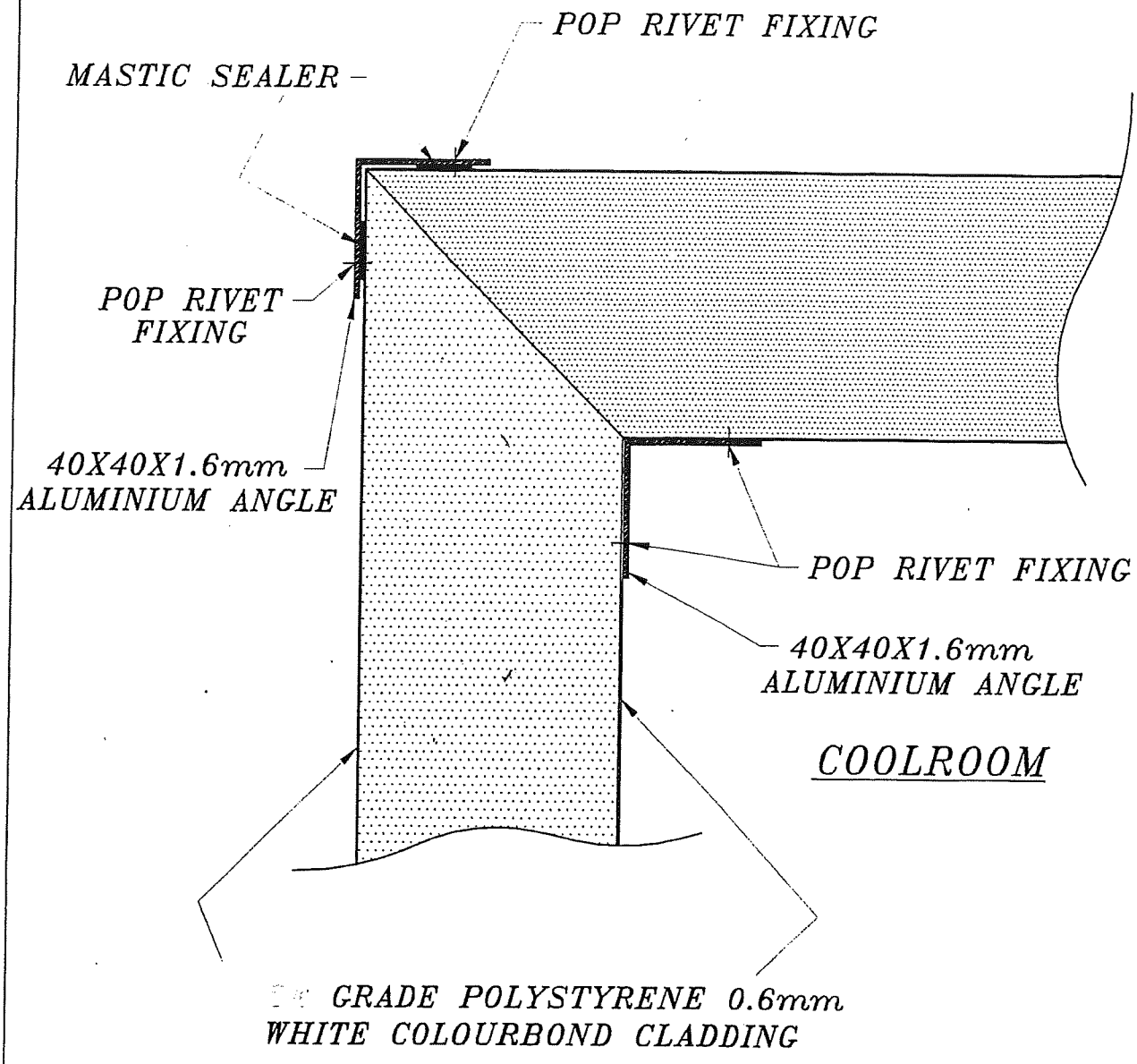
RevNo	Revision note	Date	Signature	Checked

EXTERNAL TO COOLROOM



Item no	Quantity	Title/Name, designation, material, dimension etc	Article No./Reference

Owner

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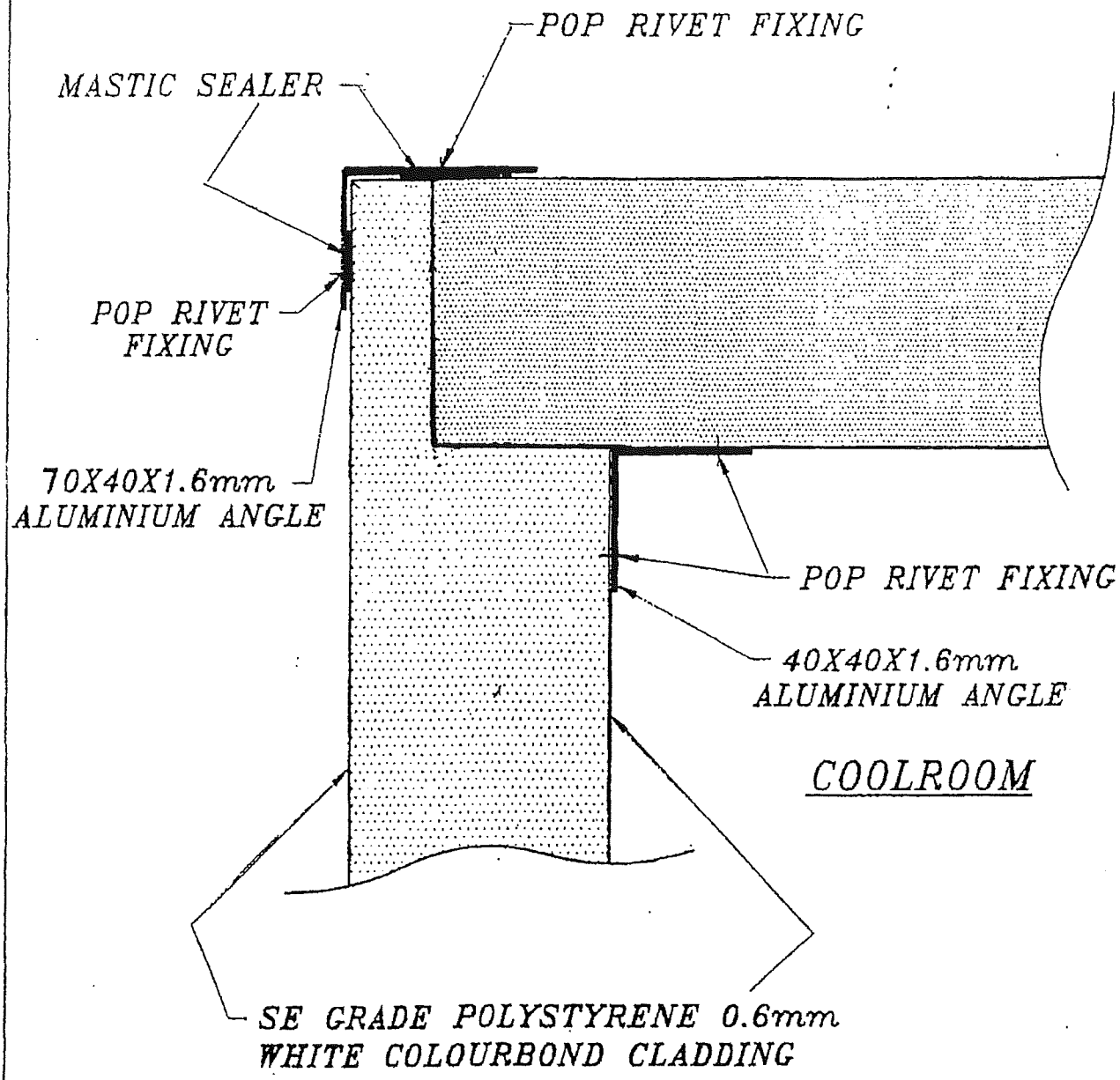
Drawn	Filename	Date	Scale
	0002	14/5/97	1:2

Title/Name: CORNER TO CORNER DETAIL

Drawing number	Edition	Sheet
000	A	1 OF 1

RevNo	Revision note	Date	Signature/Checked

EXTERNAL TO COOLROOM



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Drawn	Filename	Date	Scale
	0002	14/5/97	1:2

Title/Name: WALL TO CEILING DETAIL

Drawing number	Edition	Sheet
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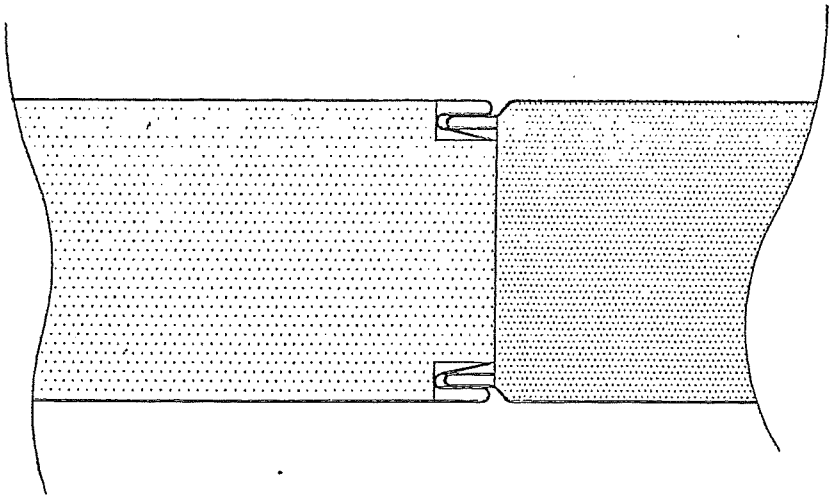
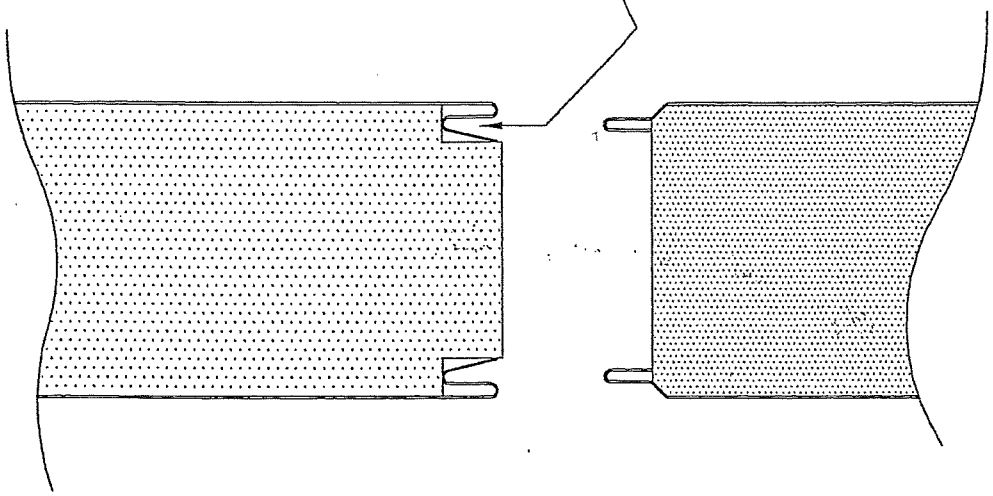
RevNo	Revision note	Date	Signature	Checked

MALE FEMALE JOINT



SEALER ON HOT SIDE



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Drawn	Filename	Date	Scale
	0001	12/5/97	1:2

Title/Name: PANEL TO PANEL JOINT DETAIL

Drawing number	Edition	Sheet
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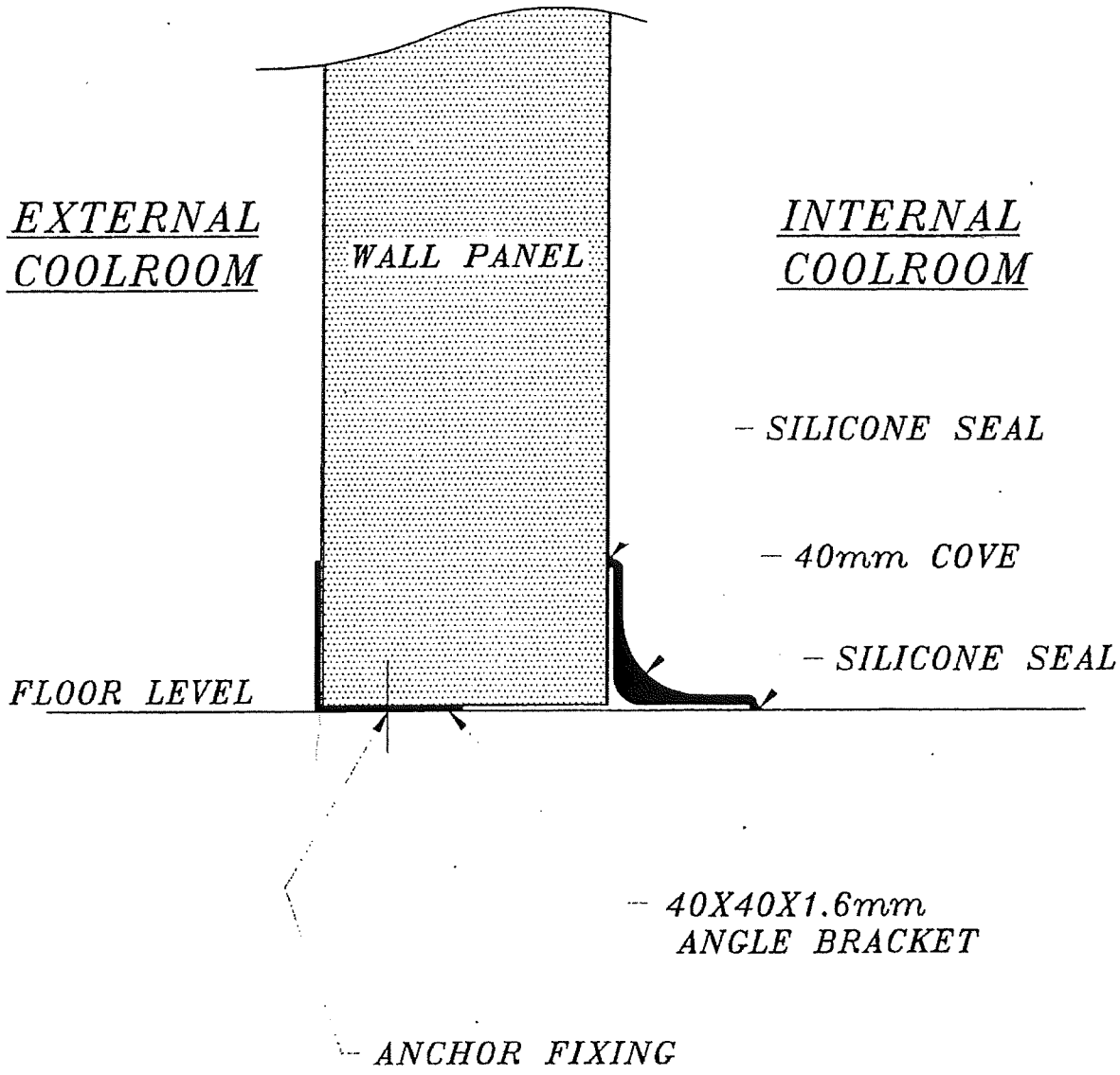
RevNo	Revision note	Date	Signature	Checked

TYPICAL WALL TO FLOOR JOINT



Item/ref	Quantity	Title/Name, designation, material, dimension etc	Article No./Reference

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Title/Name: NON INSULATED FLOOR DETAIL

Drawing number	Edition	Sheet
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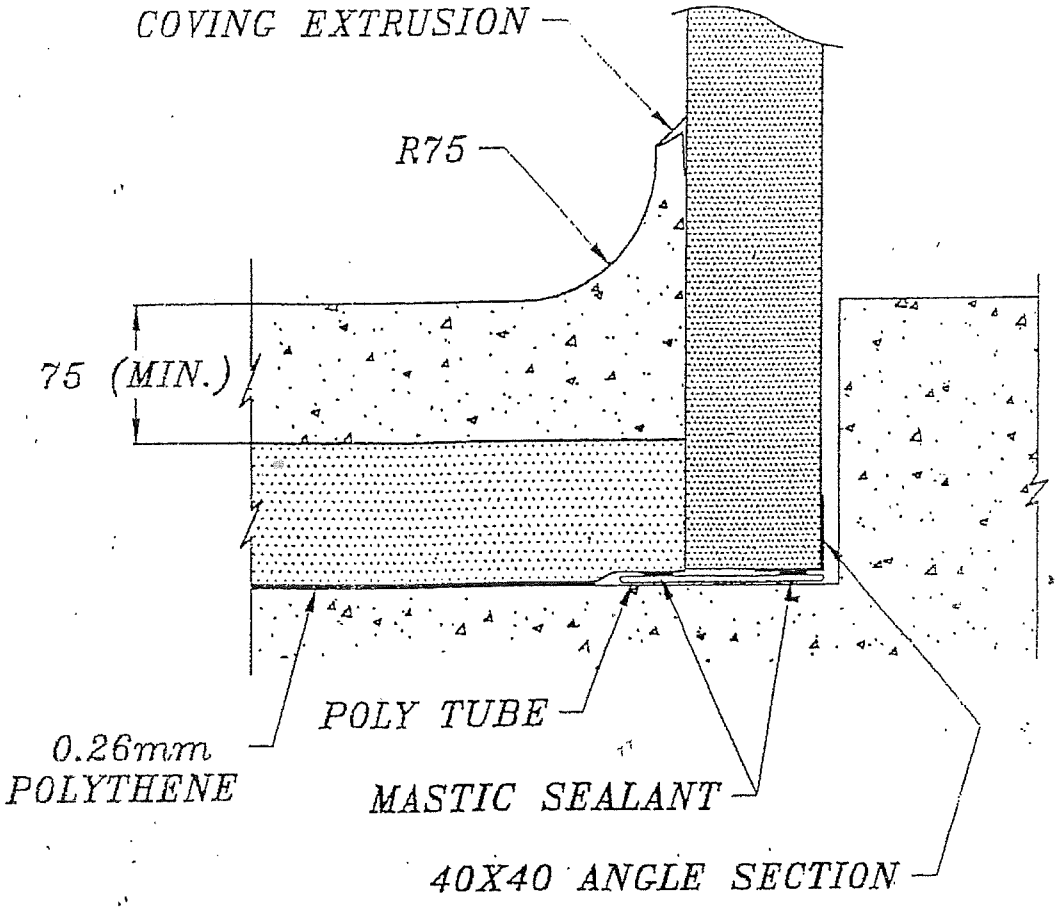

Material	Quantity	Title/Name, designation, material, dimension etc	Article No./Reference

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MANUFACTURERS OF PREFAB CONCRETING AND SANDWICH PANEL CONSTRUCTIONS

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Drawn	Filename	Date	Scale
	0004	14/5/97	1:4.5

Title/Name

INSULATED FLOOR DETAILS

Drawing number	Edition	Sheet
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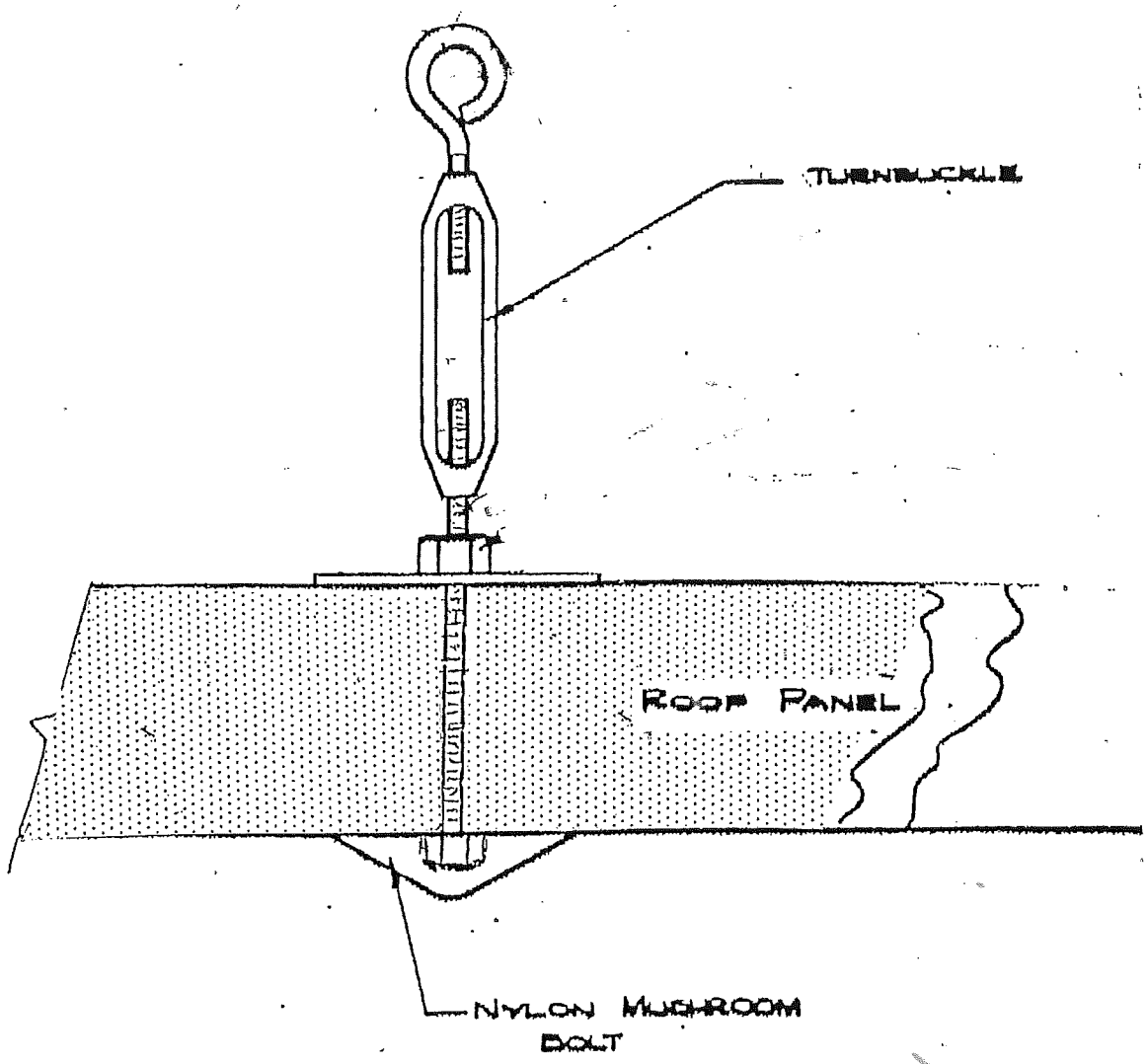
RevNo	Revision note	Date	Signature	Checked



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Drawn	Filename	Date	Scale
	0002	14/5/97	

Title/Name

Drawing number	Edition	Sheet
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