Meet the Risk Management Panel and learn the truth about the EPS Panel System

Right Panel. Right Place. Right Application.

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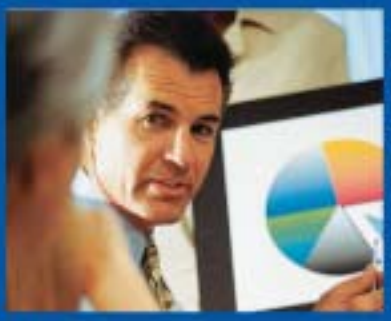
Meet the Risk Managers

Builder
When installed the correct way, the EPS Panel System is one of the fastest and lightest wall systems to erect.

Insurance Broker:
Insurance is all about risk and loss control. Many large insurers provide cover to EPS panel exposure along with prudent loss protection measures.

Architect
EPS panel systems used in conjunction with active risk management strike the right balance, between form and function when specified for manufacturing, cold storage, food-processing facilities and a range of other controlled environment building applications.



Developer:
The risk/return trade-off can make or break a project. Investment in using EPS panels correctly can mean the difference between a profitable venture or otherwise. Ultimately, the use of EPS panel in a development is a commercial decision over the lifetime of the project.

Structural Engineer
The composite action of the EPS Panel delivers the high span to weight capabilities typical of a lightweight construction system. Installation recommendations, flowing from the recent amendments to the BCA, further enhance EPS panel structures.

Fire Prevention Professional:
Active fire detection and protection measures are a critical part of risk management in all buildings as is the early intervention of the local fire services. Understanding the structural and fire behaviour properties of building systems is what fire protection professionals are trained to do.

The responsible use of Expanded Polystyrene (EPS) panel systems in buildings requires the upfront input of all the players in the construction process – the risk management panel.

From property developers, architects, structural and fire engineers to specifiers and fire prevention professionals, they all work to understand and minimise risk.

Optimising building design for all the contingent hazards is something they all know about, they deal with risk everyday.

Risk Management Means:

- Intelligent compartmentalised design and layout embracing functional needs will lower operating costs and enhance insurability.
- Active fire protection systems such as early warning smoke detection, sprinkler systems and fire alarms will always reduce risk.
- Steel flashings and rivets with appropriate ceiling support prolong the structural integrity of the insulated envelope.
- Good house keeping practices such as waste management, repair, site security, hot work permits, maintenance and staff training all mitigate risk.

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Here's the truth about EPS:

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

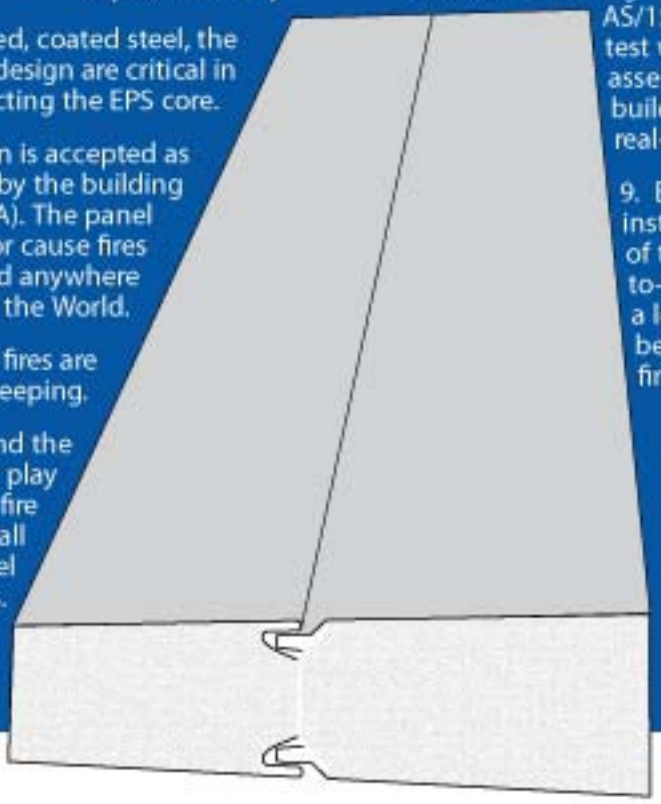
2. Interlocking panel system ensures installation is quick and easy.

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.

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Each EPS panel comes in a range of Colorbond ® colours. A universal width of 1.2 metres and a thickness that varies from 38mm to 300mm.

Installation Guidelines for the Responsible Use of EPS Panels

The key to optimum performance of EPS insulated panels lies in their correct installation depending on the application. This of course varies in each particular case. Each project is different and the EPS Panel Group promotes the highest standard of finished product that meets functional, commercial and risk management criteria. With the aid of published installation guidelines, the EPS Panel Group is able to promote a consistent framework that will ensure a higher level of professionalism within the industry.

These guidelines are based upon interpreting internationally accepted ISO/AS fire standards and trials that EPS insulated panels have satisfied. The table is a summary of the criteria and BCA outcome classification:

	Criteria per BCA Group		
Elements	Group 1	Group 2	Group 3
Core Thickness	250mm or Less.	150mm or less.	250mm or less.
Core Standard (AS1366.3) Steel Cladding	Standard Light or Standard. 0.4mm or greater Colorbond® or similar.	Standard Light or Standard. 0.4mm or greater Colorbond® or similar.	Standard Light only. 0.4mm or greater Colorbond® or similar.
Panel Fixing	Panel to panel junctions with steel angles fixed to the steel skins at not more than 300mm centres with steel rivets.	Panel to panel junctions with aluminium angles fixed to the steel skins at nominal 300mm centres with aluminium rivets.	Panel to panel junctions with steel angles fixed to the steel skins at nominal 300mm centres with steel rivets.
Ceiling Panel	Panel to panel joins require a steel stitch rivet connecting the metal skins at not more than 1200mm centres.		
Result	Insulated panel withstood a 100kW fire source for 10 minutes followed by a 300kW fire source for a further 10 minutes before flashover.	Insulated panel withstood a 100kW fire source for 10 minutes without flashover.	Insulated panel withstood a 100kW fire source for at least 2 minutes without flashover.

1. The BCA (Building Code of Australia) fire hazard properties of material specification C1.10a have been updated.

2. All building materials, not just EPS, are now assessed according to the room fire test and depending on their performance in the room fire test materials, attain a BCA defined Material Grouping.

3. The BCA specifies the classes of buildings where materials of designated groupings 1, 2, 3 or 4 can be used, both with and without sprinklers. Consult fire protection professionals for further advice on protection options and fire engineered solutions.

"In my job, it's my responsibility that whatever I specify is right. In fact it's critical to the safety of the structure. The EPS panel system allows me to design with function and the knowledge that I'm actually minimizing the risk factor."

"Structural engineering is so complex these days that I can't afford to take chances. I need to know that all building products I'm involved with, meet the BCA codes. It's as simple as that. For me, the EPS panel systems meet all the standards I need - load bearing, inter-locking stability and most importantly, its fire resistant properties. Installed correctly, EPS panels help me sleep at nights."

"If there's one thing any fire fighter knows about it's risk. We live with it every time we're called out. So for me, knowing what I'm getting into is critical. When the EPS system is installed correctly, the structure is better protected and capable of withstanding the fire."

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For more information regarding the responsible use of EPS panels, call PACIA (03) 9429 0670 or visit website: epspanelgroup.org.au

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