Expanded Polystyrene (EPS)
Quick Reference Guide

VICTUAL
RETHINKING RISK AND INSURANCE

INTRODUCTION

An insulated sandwich panel (ISP), sometimes called a composite panel, is a wall and ceiling cladding material mostly consisting of a core of insulation bonded to two outer metal skins. These building cladding materials are used extensively due to their cost and ease of installation. They are particularly attractive to the food industry due to the insulation capabilities and the hygiene benefits of clean smooth surfaces.

A variety of types of insulated sandwich panel are used in Australia depending on the application. The most common form in the Australian food industry is EPS sandwich panel, which uses expanded polystyrene (EPS) as the core insulation material.

The concern with this type of building material is the performance during fire. Whilst the different types of insulation used perform differently in fire, EPS insulation has a particularly poor track record. The polystyrene melts at temperatures of around 100°C. The insulation adds fuel to the fire and helps it spread. The poor fire performance of these building materials has contributed to a number of significant losses globally. Had these types of fires occurred in buildings of brick and concrete construction, the magnitude of the loss would have been significantly less.

In June 2002, Tip Top Bakery in NSW, there was a fire which had EPS ISP, causing a total loss of the plant. On top of the loss of the plant, the resulting business interruption cost was much greater than the asset value damaged due to the fire. Another event occurred in January 2010, at the Inghams plant in Somerville VIC with significant damage to a factory consisting of EPS. Fire spread was limited by alternative construction materials, however it was a significant financial cost. Click on this link to see a video about the event.

PREVENTION

Proactive management of the risks associated with insulated sandwich panel (ISP) construction material requires a blend of management controls, maintenance techniques and strategies for new build or major upgrades. To assist the end user, we have built the risk management controls on six pillars that, if fully implemented will be effective in protecting your business.

Separate	• Separate ignition sources from insulated panel and from insulation material
Replace	• Every opportunity should be taken to replace combustible panel with approved panel
Maintain	• Maintain equipment to prevent sources of ignition
Manage	• Manage those processes where heat is required to ensure ignition cannot occur.
Protect	• Protect assets to a level that is appropriate for the level of exposure
Recover	• Be prepared for the worst case scenario

If you require advise or help in ensuring that your facility is safe through prevention and control, Victual can provide support. Contact Victual via email or phone to set up a free 15-minute consultation about ISP.