

Product Technical Standards

Generic Metal Faced Insulating Panel System

MANUFACTURER

Hemsec Panel Technologies
Stoney Lane,
Rainhill,
Prescot,
Merseyside
L35 9LL.

PRODUCT: Composite insulated panel system.

Panel Thickness Options:	50mm, 80mm, 100mm, 125mm, 150mm, 175mm & 200mm
Profile Options:	Smooth, Rib and Microrib.
Panel Cover Width:	1155mm

PRODUCT DESCRIPTION AND APPLICATIONS

Composite Insulated Panels are pre-engineered on a continuous production line in the UK. The standard internal and external facings are typically 0.5mm hot-dipped galvanized steel with a Z225 zinc coating. Various coating systems are available depending on application.

Facings are adhesively bonded automatically during the manufacturing process to the wet lay down PIR (polyisocyanurate) insulation core. The PIR system is blended to formulations provided by BASF.

Panel joints consist of a tongue and groove detail parallel with the width of the panel and joints.

Panels can be installed to steel, timber or concrete structures both internally and externally to walls, ceilings and roofs to provide a thermal structure, and where applicable, a complete weather tight envelope.

HPT panel systems can be used in a variety of building applications, including: Distribution Warehouses, Commercial Buildings, Industrial Buildings, Retail, Supermarkets, Hospitals, Colleges, Schools, Research and Development Laboratories, Temperature and Hygiene Controlled Internal Environments (chillers and freezers).

Panels are generally fixed back to supporting structures using proprietary fasteners with integral washers and manufactured from suitable material i.e. coated carbon steel or 304 stainless steel depending on durability performance.

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STRUCTURAL TESTING

CERAM

Queens Road
Penkhull
Stoke-on-Trent
ST4 7LQ

www.ceram.com

FIRE TESTING

Bodycote Warrington Fire Research Ltd

Holmsfield Road
Warrington
Chester
WA1 2DS

www.bodycote.com

FIRE TESTING

Building Research Establishment (BRE)

Bucknalls Lane
Garston
Watford
WD25 9XX

www.bre.co.uk

PIR PROPERTIES

BASF Polyurethanes U.K. Limited

Alfreton
DE55 4NL

http://www.polyurethanes.basf.de/pu/Great_Britain

BS EN ISO 9001 ASSESSING BODY

Loss Prevention Certification Board (LPCB)

Bucknalls Lane
Garston
Watford
WD25 9XX

www.brecertification.co.uk

LPS 1208 & 1181 PRODUCT CERTIFICATION

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WD25 9XX

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FM APPROVALS

FM Global

Manchester Office
Anchorage 2
Salford Quays
Manchester
M5 3YW

www.fmglobal.com

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BS EN ISO 9001: 2008 - QUALITY MANAGEMENT SYSTEMS:

HPT have consistently maintained third party certification to BS EN ISO 9001:2008 and have fully embraced the eight management principles considered essential in delivering customer focusing products and services.

CUSTOMER FOCUS

Organisations depend on their customer and therefore should understand current and future customer requirements and strive to exceed customer expectations.

LEADERSHIP

Leaders establish unity of purpose, direction and the internal environment of the organisation. They create the environment in which people can become fully involved in achieving the organisations objectives.

INVOLVEMENT OF PEOPLE

People at all levels are the essence of an organisation and their full involvement enables their abilities to be used to the organisations benefit.

PROCESS APPROACH

A desired result is achieved more efficiently when related resources and activities are managed as a process.

SYSTEM APPROACH TO MANAGEMENT

Identifying, understanding and managing a system of inter-related processes for a given objective contribute to the effectiveness and efficiency of the organisation.

CONTINUAL IMPROVEMENT

A permanent objective of the organisation is continual improvement.

FACTUAL APPROACH TO DECISION MAKING

Effective decisions are based on the logical or intuitive analysis of data and information.

MUTUALLY BENEFICIAL SUPPLIER RELATIONSHIPS

The ability of the organisation and its suppliers to provide value is enhanced by mutually beneficial relationships.

Physical Properties	Unit	Current Test Method Adopted by BASF/HPT
Density	Kg/m ³	BS EN 1602
Thermal Conductivity (λ) – Initial	W/mK	BS EN 13165
Thermal Conductivity (λ) – Aged	W/mK	BS EN 13165
Compressive Strength	kPa	BS EN 826
Tensile Adhesion Strength	kPa	BS EN 1607
Fire Behaviour (Core Material)	mm	DIN 4102
Fire Resistance	FR30/60	BS 476 Pt 22-5 BS 476 Pt 22-9
Reaction to Fire	Refer to HPT	LPS 1181 FM4880
Dimensional Stability	% Linear Change	BS 4370-3

INSULATION CORE

Polyisocyanurate (PIR): Closed cell HCFC free, Zero ODP, with a thermal conductivity value λ of 0.020 W/m K.

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PRODUCT PERFORMANCE STANDARDS

BS EN 1602	Thermal insulating products for building applications. Determination of the apparent density
BS EN 13165	Thermal insulation products for buildings. Factory made rigid polyurethane foam (PUR) products. Specification
BS EN 826	Thermal insulating products for building applications. Determination of compression behavior.
BS EN 1607	Thermal insulating products for building applications. Determination of tensile strength perpendicular to faces
DIN 4102	Fire behavior of building materials and elements - Classification of building materials - Requirements and testing
BS 4370-3	Methods of test for rigid cellular materials. Methods 12 and 13
BS 476-22	Fire tests on building materials and structures. Methods for determination of the fire resistance of non-loadbearing elements of construction
LPS 1208	LPCB Fire resistance requirements for elements of construction used to provide compartmentation
LPS 1181	Series of Fire Growth Tests for LPCB Approval and Listing of Construction Product Systems
FM 4880	Class 1 Fire Rating of Insulated Wall or Wall and Roof/Ceiling Panels, Interior Finish Materials or Coatings, and Exterior Wall Systems
BS EN 14509	Self-supporting double skin metal faced insulating panels. Factory made products. Specifications
BS 6399-1	Loading for buildings. Code of practice for dead and imposed loads
BS EN ISO 9001	Quality management systems. Requirements