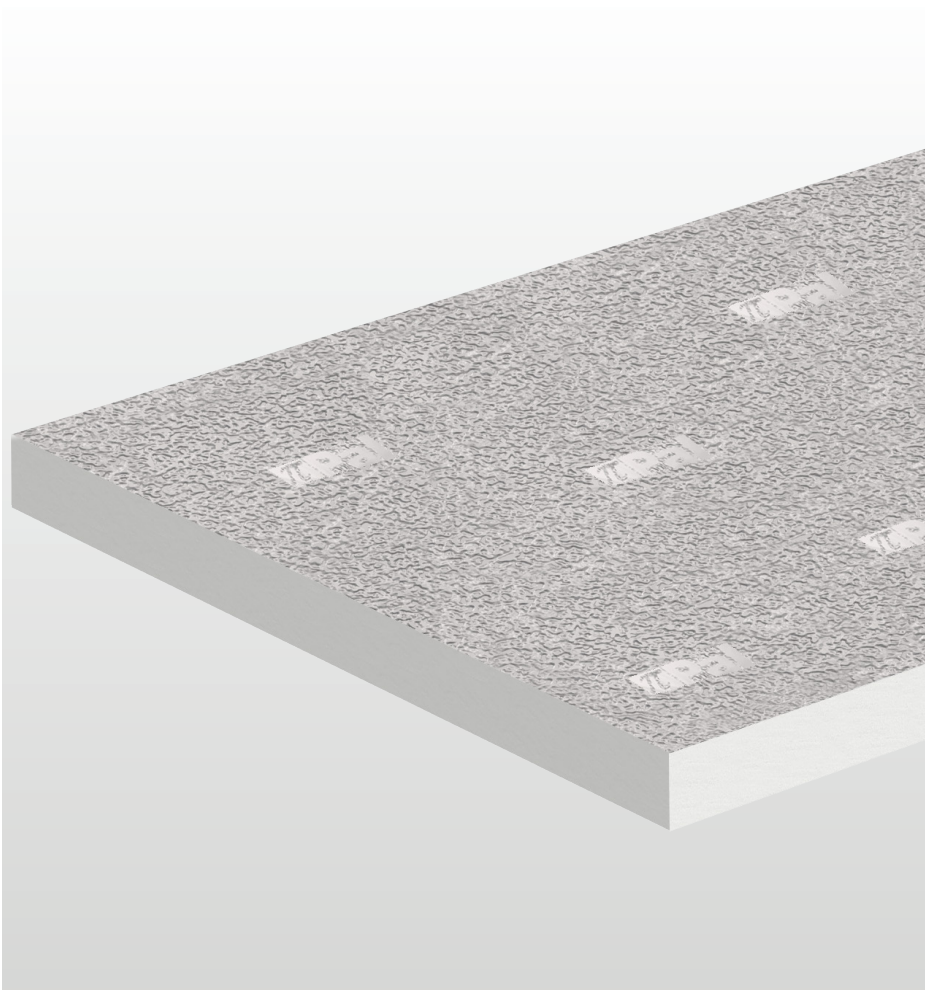


Insulation



PalDuct™ PIR Panel

Technical Data Sheet
Product Code: 1010



- Rigid thermoset PIR insulation with thermal conductivity as low as 0.022W/(m.K) at 10°C (ASTM C518-21)
- Class 1 Surface Spread of Flame (BS 476:Part 7:1997)
- Thermal conductivity as low as 0.023W/(m.K) at 23°C (ASTM C518-21)
- Singapore Green Building Product Certified (Excellent) (SGBP 5434)
- Manufactured with a blowing agent with zero ODP and low GWP.

Fibre-free
Core



Kingspan®

Product Information

Product Description

Kingspan PalDuct PIR Panels comprises of a fibre-free rigid thermoset polyisocyanurate (PIR) insulation core, faced on both sides with an embossed aluminium foil. The core is manufactured with a blowing agent that has zero ODP and low GWP.

Operating Recommendations

It is recommended that ductwork fabricated from Kingspan PalDuct PIR Panels is used for operation as supply, return, fresh and exhaust air ductwork for HVAC systems.

Application Suitability

Kingspan PalDuct PIR Panels are designed for use in building services / HVAC applications. They are suitable for both new build and refurbishment projects in the residential, commercial, public, light industrial and leisure sectors. They are especially suitable for use on high specification projects where insulants with a fibre-free core may be preferred, for instance:

- The food, beverage and pharmaceutical industries;
- Clean air and hygiene controlled environments;
- High relative humidity environments;
- Swimming pools;
- Non-ferrous applications; and
- Sterile areas of hospitals and
- Communication/server rooms in data centres.

Singapore Certificate of Conformity (SG CoC)

This product is approved for use in Singapore, according to the Singapore Civil Defence Force's (SCDF) requirements.

Auditors perform yearly tests on random samples to ensure continued fire performance, according to previously used tests.

Further details of the SG CoC listing for this product are published on Element's Singapore Certifications website at:

<https://certificationsingapore.element.com/certified-customers/>

To view the listing, search keyword "Kingspan". Read more about the SG CoC on the SCDF website, or contact us for clarifications.

Fabrication and Installation

Ductwork fabricated from Kingspan PalDuct PIR Panels should only be fabricated by specially trained fabricators who have completed the specialised and comprehensive training course provided for the System.

Health and Safety

- Please refer to the Materials Safety Datasheet (MSDS)
- For more information contact Kingspan Insulation.

Singapore Green Building Product

The SGBP certification scheme is one of the standards and benchmarks for building products in the building and construction industry. Products and materials certified by the SGBP are recognised under the Green Mark Scheme, Singapore's national green building rating tool, administered by the Building and Construction Authority (BCA).



The scheme allows certified products to accrue points that count towards a project's Green Mark rating. Higher rated products under the SGBP Scheme (i.e., achieving more ticks), are awarded more points towards Green Mark ratings.

The SGBP is also accepted by regional green building rating tools for its coverage of products' sustainability performance. Examples include GreenRE in Malaysia, and LOTUS, Vietnam Green Building Council's rating tool.

Source: Singapore Green Building Council

Further details of the SGBP listing for "Kingspan PalDuct PIR Product Code: 1010" are published on the Singapore Green Building Council's website at: <https://web.sgbc.online/public/product/search>

Product Information

Technical Specifications

| Property | Value | Test Standard |
|--|-----------------------|---------------------------------------|
| Product Thickness (mm) | 20 | - |
| Panel Dimensions (mm) | 4000 x 1200 | - |
| Aluminium Foil Finish | Embossed/ Embossed | - |
| Surface Spread of Flame | Class 1 | BS 476: Part 7: 1997 |
| Smoke Density (VOF4) | < 300 | ISO 5659-2: 2017 |
| Smoke Density (Average D _{smax} within 20mins) | < 150 | ISO 5659-2: 2017 |
| Toxicity Emission (Average CIT at 8 mins) | < 0.75 | EN 45545-2: 2013 +A1: 2015 Annex C |
| Thermal Conductivity at 10°C, W/(m.K) | 0.022 | ASTM C518-21 |
| Thermal Conductivity at 23°C, W/(m.K) | 0.023 | ASTM C518-21 |
| Minimum Density, kg/m ³ | 45 | EN 1602: 2013 |

Contact Details

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To ensure you are viewing the most recent and accurate product information, please visit this link:
www.kingspan.com/sg/en/products/hvac-insulation/pre-insulated-duct/palduct-pir

