Insulation

KDuct™ Pre-Clad PIR

Ductwork for Outdoor Applications



Fibre-free Core

Kingspan®

Introduction

Overview

The heating, ventilation and air–conditioning (HVAC) industry is in the midst of a dynamic era. However, air–distribution ductwork, a critical component of HVAC systems, has remained virtually unchanged since the early 1900s. Several factors have introduced the need to revolutionise HVAC ductwork. Energy use has continued to escalate, and thus the demand for energy reducing solutions has intensified. Requirements for clean air are becoming increasingly prevalent. Speed of construction has become a valuable asset. Floor space and headroom are under constant pressure.

What is Kingspan KDuct Pre-Clad PIR Technology?

KDuct Pre-Clad PIR is Kingspan's innovative and revolutionary pre-insulated ductwork system comprise of a fibre-free high performance rigid thermoset foil faced polyisocyanurate (PIR) insulation with a 0.76mm outer composite aluminium laminated facing, ideal for:

- External/Outdoor applications
- Plantrooms
- Risers
- Congested spaces
- Lightweight specifications

Advantages of Kingspan KDuct Pre-Clad PIR Technology

- Ultra-strength and rigidness
- Cost-savings over traditional exterior ductwork
- Easy to clean and hygienic.
- Clean air: fibre–free insulation core.
- Improved indoor air quality (IAQ)
- Easy to transport and install.
- Space-saving: flush-fitting installation possible.
- Low 'λ' value.
- Fast–track single–fix installation.
- No limits to duct sizes.
- High–compressive strength.
- Base material is impermeable to moisture.
- Environmentally friendly: CFC and HCFC free.

KDuct Pre-Clad PIR Panels

Kingspan KDuct Pre-Clad PIR panels comprise of a fibre-free high performance rigid thermoset foil faced polyisocyanurate (PIR) insulation with a 0.76mm outer composite aluminium laminated facing. The core is manufactured with blowing agent that has zero ODP (contains no CFCs and HCFCs) and GWP ≤5.

Property	Value
Insulant Thickness (mm)	30
Panel Dimensions (mm)	4000 x 1200
Min. Density (kg/m^3) (EN1602-2013)	60
Thermal Conductivity (W/m.K) @ 35°C (ASTM C518-17)	0.030

Certifications

KDuct Pre-Clad PIR is manufactured to the highest standards under a management system certified to ISO 9001: 2015 (Quality Management System), ISO 14001: 2015 (Environmental Management System), ISO 45001: 2018 (Occupational Health and Safety Management System) and ISO 37301:2021 (Compliance Management System).

Specialised Training & Technical Support

Kingspan Insulation provides specialised and comprehensive training courses to appointed distributors and clients in order to ensure that fabricators carry out the fabrication of Kingspan KDuct Pre-Clad PIR for any project directly on–site, assuring fast and more accurate execution of duct installation requirements.

Contact Details

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Technical Service

Kingspan Insulation has one of the most technically advanced support services in the industry offering a full spectrum of advice, free of charge for all types of design projects.

The Kingspan Insulation technical team are continually updating their knowledge on building regulations, best practise, construction methods and the development of building materials to ensure the advice and services provided are always one step ahead.

Services available:

- U-value calculations;
- condensation/dew point risk calculations;
- advice on product selection and product data for the full range of Kingspan Insulation products;
- installation and fixing advice on all applications and products;
- specification and construction advice; and
- Tapered Roofing Design service.

Email: technical@kingspaninsulation.ae

Kingspan Insulation LLC reserves the right to amend product specifications without prior notice. Product thicknesses shown in this document should not be taken as being available ex-stock and advice should be sought directly from Kingspan Insulation LLC. The information, technical details and fixing instructions etc. included in this literature are given in good faith and apply to uses described herein. Recommendations for use should be verified as to the suitability and compliance with actual requirements, specifications and any applicable codes, laws and regulations. For other applications or conditions of use, Kingspan Insulation offers a Technical Advisory Service, the advice of which should be sought for uses of Kingspan Insulation products that are not specifically described herein or specifically required for your region.

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