Insulation

KDuct™ Pre-Clad Duct Systems

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 Technology?

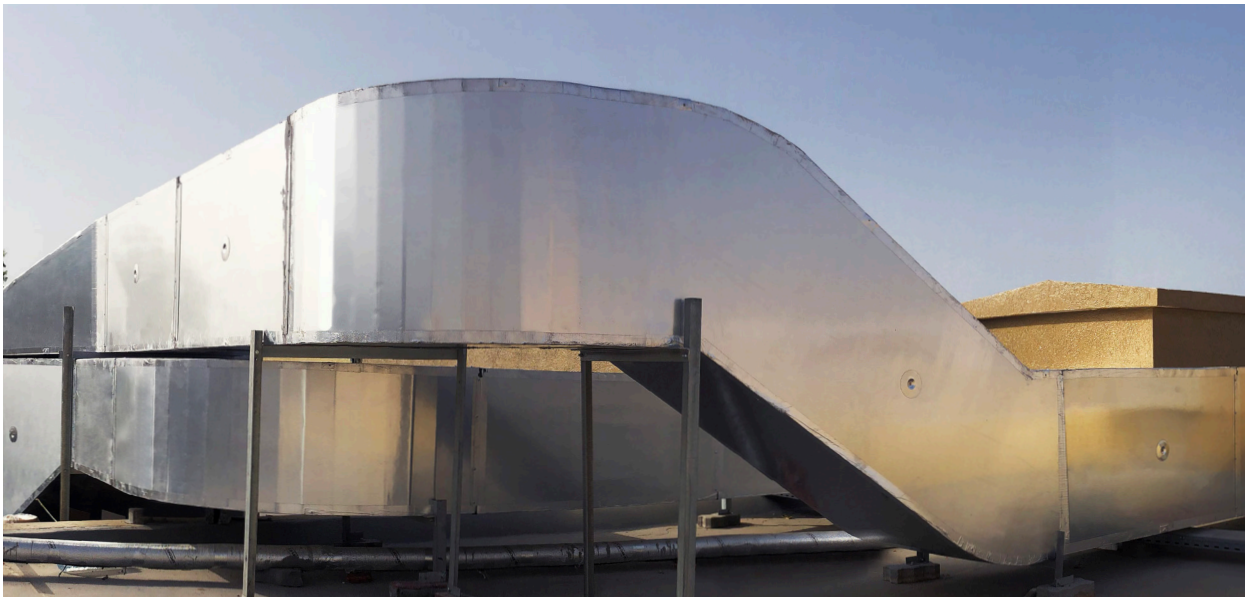
KDuct is Kingspan's innovative and revolutionary pre-insulated Phenolic ductwork system made of thermoset fibre-free pre-insulated duct board with a heavy-duty outer jacket, ideal for:

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

Advantages of Kingspan KDuct 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)
- Resistant to fungus growth.
- 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: CFCs and HCFCs free.

Fibre-free Core



KDUCT-Outdoor & Non-Conditioned Ductwork System

- 32mm pre-insulated ductwork fabricated from thermoset fibre-free duct board.
- 0.76mm impact resistant Aluminium Facer with anti-static properties for easy maintenance.
- Aluminium Facer is Layered with a transparent UV-Protective Outer Film with resistance to Acid, Alkali, Salt, Fat, Oil, Bacteria & Fungi.
- 32mm KDuct is engineered for unconditioned area applications - like risers, plant rooms, car parks and external applications.
- Duct sections will be delivered pre-assembled to the job site ready for installation by trained & Authorized Kingspan Fabricators.
- Quality Assurance procedures on the Duct Board will indicate the Date of Manufacture, Batch Number and Certification.
- Standard Warranty from Kingspan will be provided.
- KDuct board achieves Flame Spread Index (FSI) of 25, Smoke Developed Index (SDI) of 50 when tested in accordance with ASTM E84/UL 723 (Surface Burning Characteristics).
- KDuct is manufactured with a blowing agent that has zero Ozone Depletion Potential (ODP) and Low Global Warming Potential (GWP<5).
- KDuct is CFCs/HCFCs Free.
- KDuct shall be fabricated in accordance with manufacturers recommendations adhering to building codes.
- The non-metal ductwork is thermoset fibre-free board which is physiologically and chemically inert and insoluble, vermin proof, fungus proof, anti-bacterial and non-metabolizable.
- Local manufacturing will ensure points on Sustainability and the reduction of carbon footprint. This will ensure availability of panels & quality management of the product.
- Kingspan to supervise the fabrication and installation of ducts to site and a confirmation letter on this will be provided.

Technical Data

Property	Standard	Unit	Value
Thickness		mm	32
Thickness Tolerance		mm	± 2
Min. Density		kg/m^3	75
Compressive Strength	BS EN 826:1996	10%	200
Thermal Conductivity at 35°C		W/m.K	0.037

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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