

Insulation



KDuct™ Pre-Clad Phenolic



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 rethink and modernize HVAC ductwork. Energy use has continued to escalate, and thus the demand for energy-efficient 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 Phenolic Technology?

KDuct Pre-Clad Phenolic is Kingspan's 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

Product Description

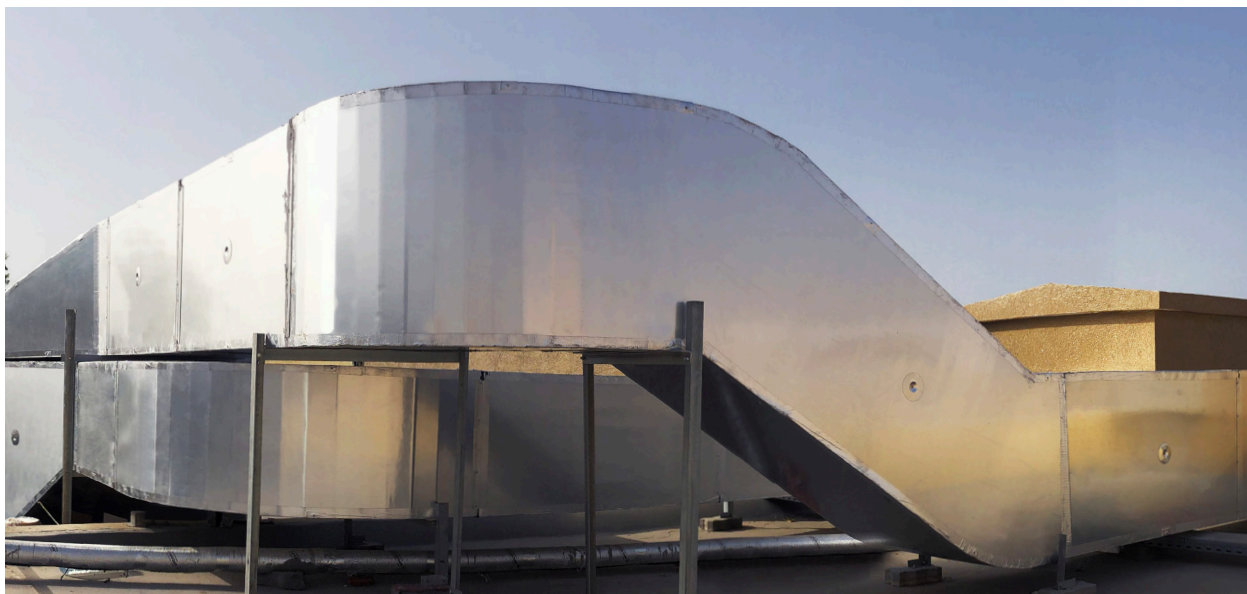
KDuct Pre-Clad Phenolic duct comprises a fibre-free rigid thermoset phenolic insulation core, faced on the inner side with a reinforced aluminium foil with glass scrim based facing and exposed side with composite aluminum laminate facer.

Manufactured with a blowing agent that has zero ODP (contains no CFCs and HCFCs) and GWP ≤ 5 .

Technical Data

Property	Standard	Unit	Value
Product Thickness*		mm	30
Min. Density	EN 1602:2013	kg/m ³	75
Min. Compressive Stress*	BS EN 826:2013	10%	200
Thermal Conductivity at 35°C	ASTM C518-17	W/m.K	0.037

* Standard manufacturing tolerance may apply, for more information contact Kingspan Insulation technical service.



KDuct Pre-Clad Phenolic-Outdoor & Non-Conditioned Ductwork System

Advantages of KDuct Pre-Clad Phenolic Technology

- 30mm pre-insulated ductwork fabricated from thermoset fibre-free duct board.
- 30mm KDuct Pre-Clad Phenolic is engineered for unconditioned area applications - such as risers, plant rooms, 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 Pre-Clad Phenolic board achieves Flame Spread Index (FSI) of 25, Smoke Developed Index (SDI) of 50 (inner facer) when tested in accordance with ASTM E84/UL 723 (Surface Burning Characteristics).
- KDuct Pre-Clad Phenolic is manufactured with a blowing agent that has zero Ozone Depletion Potential (ODP) and Global Warming Potential (CFCs and HCFCs free).
- KDuct Pre-Clad Phenolic shall be fabricated in accordance with manufacturer's recommendations adhering to building codes.
- Kingspan to supervise the fabrication and installation of ducts on site and a confirmation letter will be issued accordingly.

KDuct Pre-Clad Phenolic Handling Advice

Kingspan Insulation provides precautionary guidelines to customers with essential knowledge for maintaining panels/duct systems. These guidelines ensure longevity, efficiency, and prevent costly repairs.

- Do not drop, avoid dragging any materials over the ducts.
- Store the ducts in a clean area, avoid stacking.
- Do not step on the duct.
- Avoid placing any materials over the installed ducts.
- Do not cut or saw.
- Do not perforate or puncture.
- Take precautions to protect the ducts from potential damage.
- Handle the ducts with care during all stages of the process, including assembling, loading, offloading, shifting, and installation.

Certifications

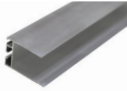
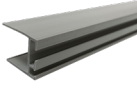
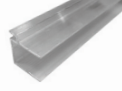
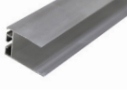
KDuct Pre-Clad Phenolic is manufactured to the highest standards under a management system certified to ISO 9001:2015 (Quality Management System), ISO 14001:2015 (Environmental Management System), ISO 45001:2018 (Occupational Health and Safety Management System) and ISO 37301:2021 (Compliance Management 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 Phenolic for any project directly on-site, ensuring faster and more accurate execution of duct installation requirements.

PalDuct Panel Accessories


Polymer/Aluminium Invisible Profile/ Aluminium Joint Profile

	Thickness	20 mm
	Code	4010 (Aluminium Invisible Profile)
	Nominal Length	4 m
	Thickness	20 mm
	Code	4100 (Polymer Invisible Profile)
	Nominal Length	4 m
	Code	4040 (Aluminium Joint Profile)
	Code	4041 (Aluminium Invisible Profile)
	Nominal Length	4 m



H Bayonet in Polymer

	Thickness	20 mm
	Code	4105
	Nominal Length	4 m



Aluminium Channel

	Thickness	30 mm
	Code	4080
	Nominal Length	4 m

Corner Cover in Polymer

	Thickness	20 mm
	Code	4350
	Thickness	30 mm
	Code	4390

Corner Plate for Invisible Profile

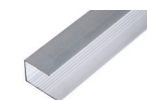
	Thickness	20 mm
	Code	4360
	Thickness	30 mm
	Code	4400

Steel Corner

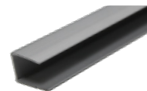


Code	4380
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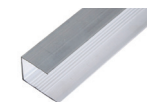
Polymer/Aluminium U Profile



Thickness	20 mm
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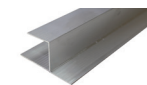


Code	4013 (Aluminium U Profile) 4101 (Polymer U Profile)
Nominal Length	4 m

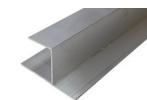


Thickness	30 mm
Code	4042 (Aluminium U Profile)
Nominal Length	4 m

Aluminium Chair Profile

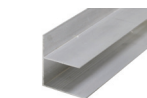


Thickness	20 mm
Code	4015
Nominal Length	4 m

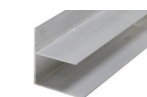


Thickness	30 mm
Code	4043
Nominal Length	4 m

Aluminium F Profile



Thickness	20 mm
Code	4017
Nominal Length	4 m



Thickness	30 mm
Code	4044
Nominal Length	4 m

Reinforcement Bar in Aluminium



Code	4450
Nominal Length	4 m

Gasket Self Adhesive



Code	4461
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PalDuct Panel Accessories, Adhesive Material & Components

Reinforcement Disc in Aluminium



Code	4454
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Reinforcement Disc in Polymer



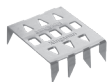
Code	4452
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Duct Support



Code	4455
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Tiger Clip



Code	3034
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Cross Fixing Device



Code	4453
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Kingspan PalDuct Sealant



Code	4250
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Screw for Stiffening Rod



Code	4458
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Kingspan PalDuct Adhesive



Code	4210
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Aluminium UL 181 Tape



Length	30 yard
Code	4340

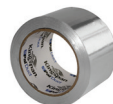


Length	60 yard
Code	4346

Aluminium Tape

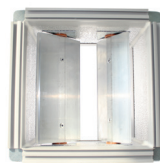


Width (in)	50 mm
Code	4300



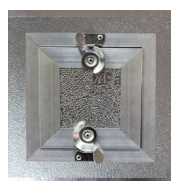
Width	75 mm
Code	4310

Phenolic Pre-insulated Volume Control



Thickness	20/30 mm
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Phenolic Pre-insulated Access Door



Thickness	20/30 mm
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Contact Details

Middle East

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Dubai | UAE

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F: +971 (0) 4 883 8515

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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 practice, 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.

To ensure you are viewing the most recent and accurate product information, please visit this link <https://www.kingspan.com/ae/en/products/ductwork/pre-insulated-duct/kduct/?s=d>

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