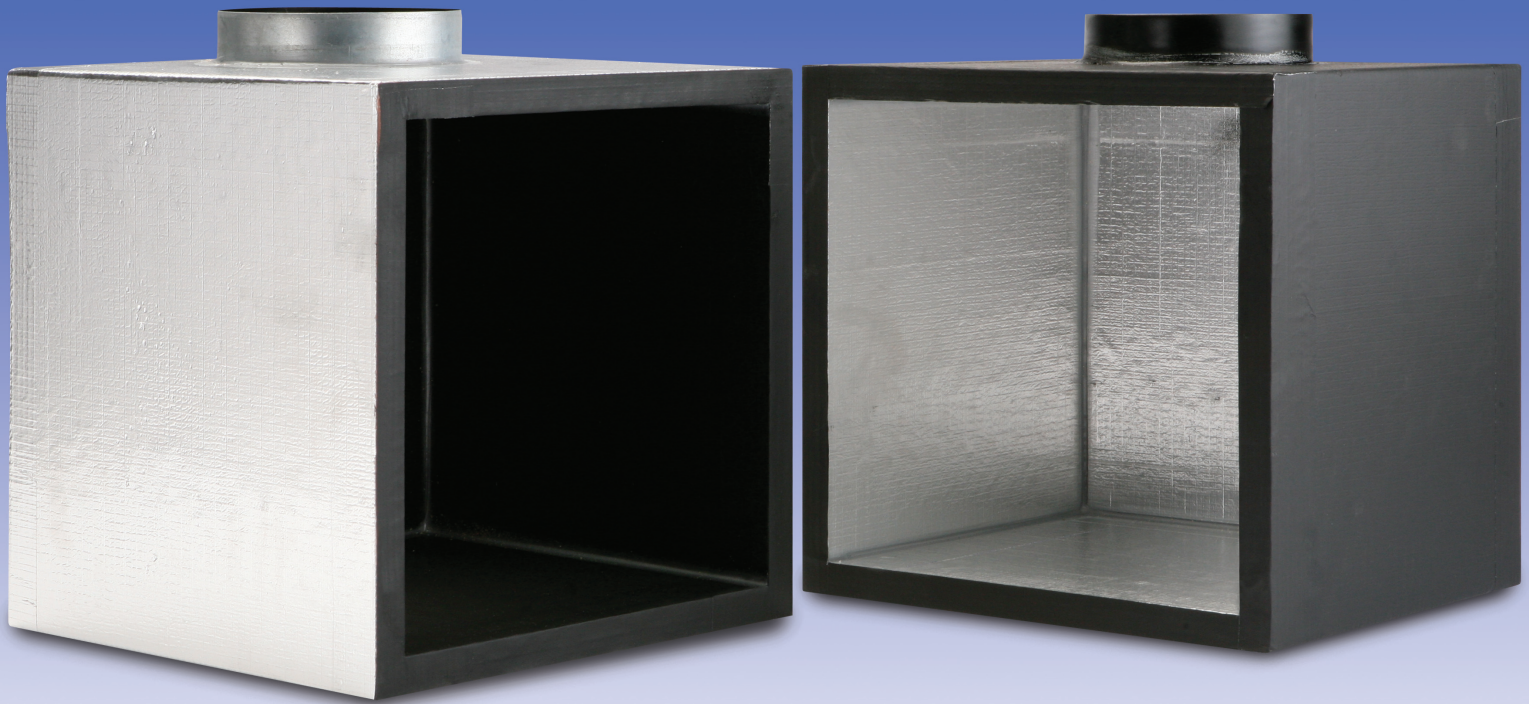


Kingspan **KoolDuct**[®] Plenum Panels

FOR FABRICATION OF PRE-INSULATED PLENUM BOXES



Kingspan **KoolDuct**® Plenum Panels

Kingspan **KoolDuct**® Plenum Panels have a CFC/HCFC-free rigid phenolic insulation core with a minimum density of 40 kg/m³. Manufactured by a continuous process, the quality of the insulation is constantly monitored and controlled. A closed cell structure gives the product excellent thermal properties as well as resistance to moisture penetration and wicking.

Kingspan **KoolDuct**® Plenum Panels are faced on one side with a 23 micron black-coated aluminium foil reinforced with a 5 mm glass tissue scrim. The opposite facing is a 25 micron aluminium foil reinforced with a glass tissue scrim. This panel is reversible in application.

Kingspan **KoolDuct**® Plenum Panels are able to withstand temperatures from -20°C to +80°C. They also have an exceptional resistance to burning and spread of flame far superior to that of any other cellular plastic insulation. In addition there is an almost complete absence of smoke when subjected to a flame source.

Kingspan **KoolDuct**® Plenum Panels satisfy the requirements of the TIMSA Guide and BS 5422: 2001 along with other major national specifications including NHS CO₂, NES Specification Expert Y50 and DEO Specification 037. Kingspan **KoolDuct**® Plenum Panels are manufactured under a quality control system approved to BS EN ISO 9001: 2000 (Quality management systems. Requirements).

Application

Kingspan **KoolDuct**® Plenum Panels are suitable for fabricating pre-insulated plenum boxes for Building Services / HVAC applications.

Availability

- Panel dimensions: 1200 mm x 2950 mm.
- Panel thickness: 20 mm.



Packaging

The panels are supplied in labelled packs shrinkwrapped in polythene.

Storage

The packaging of Kingspan **KoolDuct**® Plenum Panels should not be considered adequate for long term outside protection. Ideally, panels should be stored inside a building. If, however, outside storage cannot be avoided, the panels should be stacked clear of the ground, and covered with a polythene sheet or weatherproof tarpaulin. Panels that have been allowed to get wet should not be used.

Health and Safety

Kingspan Insulation products are chemically inert and safe to use. A leaflet on this topic which satisfies the requirements set out in the Control of Substances Hazardous to Health Regulations 1988 (COSHH) is available from the Kingspan Insulation Marketing Department.

The reflective facing used on this product can be slippery underfoot when wet. Therefore, it is recommended that any excess material should be contained to avoid a slip hazard.

Warning – do not stand on or otherwise support your weight on this panel unless it is fully supported by a load bearing surface.

NB

Kingspan Insulation Ltd. 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 reference should be made to the current Kingspan Insulation price-list or advice sought from Kingspan Insulation's Customer Service Department. The information, technical details etc. included in this literature are given in good faith and apply to uses described. Recommendations for use should be verified as to the suitability and compliance with actual requirements, specifications and any applicable 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. Please check that your copy of the literature is current by contacting the Kingspan Insulation Marketing Department on +44 (0) 870 733 8333.

General Physical Properties (Rigid Phenolic Insulation Core)

Property	Test Method	Typical Value
Nominal Density	(BS 4370-1: 1988 (1996))	40 kg/m ³
Thermal Conductivity at 10°C Mean Temp	(BS 4370-2: 1993)	0.021 W/m·K
Colour		Pink
Minimum Closed Cell Content	(BS EN ISO 4590: 2003)	>90%
Compressive Strength at 10% Compression	(BS EN 826: 1996)	120 kPa
Operating Temperature Limits of Panel	Upper Limit	+80°C
	Lower Limit	-20°C
Specific Heat Capacity		1.88 kJ/kg·°C

General Physical Properties (Black-coated Aluminium Foil Vapour Barrier Jacket / Aluminium Foil Vapour Barrier Jacket)

Property		Typical Value
Composition Black Facing	Black Coating	5.1 micron
	Aluminium	18 micron
	Glass Fibre Scrim	5 mm x 5 mm
	Glass Fibre	49 g/m ²
Composition Aluminium Facing	Coated Aluminium	25 microns
	Glass Fibre Scrim	5 mm x 5 mm
	Glass Fibre	49 g/m ²

Fire Test Classifications (Rigid Phenolic Insulation Core)

Kingspan **KoolDuct**® Plenum Panels will achieve the results given below which enables them to be classified by the Building Regulations as being Class 0 and Low Risk by the Building Standards in Scotland.

Fire Test	Test Method	Result
Fire Propagation	BS 476-6: 1989	Fire Propagation index of performance (I) not exceeding 12 and sub index (i ₁) not exceeding 6
Surface Spread of Flame	BS 476-7: 1997	Class 1



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