

Product Data Sheet

KoolDuct[®]

Pre-Insulated Ductwork



KoolDuct[®]


Kingspan[®]

KoolDuct®

Product Description

KoolDuct®

Kingspan KoolDuct® rigid pre-insulated ductwork panels are an air-distribution ductwork system.



Figure 1. Kingspan KoolDuct pre-insulated ductwork.

- Available up to R2.0
- Lightweight compared to standard metal ducting
- Could save on installation time
- AS/NZS 4859.1:2018 compliant
- No CFC or HCFC used in manufacture
- Has zero ODP and low GWP
- BRANZ Appraised



KoolDuct®

Product Performance Data



Figure 2. Kingspan KoolDuct pre-insulated ductwork.

Scope of Use

Kingspan KoolDuct pre-insulated ductwork is an air-distribution ductwork system. Kingspan KoolDuct panels could lead to energy savings, reduced heating and cooling loads, smaller plant sizes, and capital cost savings.

Kingspan KoolDuct panels are also lightweight compared to traditional sheet metal ducting, requiring less support hangers and install labour.

Kingspan KoolDuct can be used in residential or commercial applications. NZBC Acceptable Solution G4/AS1, paragraph 1.5 can be used to design and install the mechanical ventilation system to satisfy the NZBC Performance Requirements G4.3.1 and G4.3.2.

Product Data

Kingspan KoolDuct®				
Product Dimensions	1200 mm x 3930 mm			
Board Thickness	20 mm	22 mm	30 mm	46 mm
Product R-value*	R0.83	R0.92	R1.35	R2.0
Thermal Conductivity* (λ-value) at 15°C	20-24 mm thick 0.024 W/mK		> 24 mm thick 0.023 W/mK	
Nominal Density (kg/m³)	60 kg/m³			
Nominal Weight (kg/m²)	20 mm 1.2 kg/m²	22 mm 1.32 kg/m²	30 mm 1.80 kg/m²	46 mm 2.76 kg/m²

* All lambda and R-values are at 15°C and declared according to AS/NZS 4859.1:2018.

Other thicknesses available on request.

General

- NZBC and AS/NZS 4859.1:2018 compliant.
- Resistant to the passage of water vapour.
- Fibre-free, closed cell insulation core.
- Product is made in Australia.
- Kingspan KoolDuct is not subject to a warning or ban under section 26 of the Building Act 2004 when used as per the product scope.

Limitations

- Cannot be exposed to weather elements.
- For internal use only.
- Kingspan KoolDuct can only be used for duct work purposes. It cannot be used for wall/roof/floor applications.
- The perforated face of the Kingspan KoolDuct Panel must be facing the inside of the duct. Incorrect installation will compromise product durability and the warranty will be void.

Compliance

Kingspan KoolDuct meets the performance requirements of NZBC Clause B2 Durability (B2.3.1 (a) 5 years, Clause C3 Fire Affecting Areas Beyond the Fire Source (C3.4), Clause F2 Hazardous Building Materials (F2.3.1), and Clause H1 Energy Efficiency (contributes to H1.3.6) providing:

- It is not damaged, dented or fractured.

Refer to BRANZ Appraisal No. 771 for further details.

Standards and Approvals

Kingspan KoolDuct is manufactured to the highest standards and certified under the following management systems:

Standard	Management System
ISO 9001:2015	Quality Management
ISO 14001:2015	Environmental Management
ISO 45001:2018	Health and Safety Management
ISO 50001:2018	Energy Management

Environmental Data

Aspect	Characteristic
Re-usability	Re-usable if removed with care (long term of service expected)
Water Use	No water used in Kingspan Insulation's manufacturing process
Blowing Agent	Manufactured with a blowing agent that has zero ODP and low GWP
CFC/HCFC	Product CFC/HCFC Free

Fire Performance

Test	Test Method	Result
Burning Test – Air Duct	UL 181.11:2013	Pass
Early Fire Hazard Properties. (Ignitability, Flame spread, Heat release, Smoke release)	AS 1530.3:1999	Ignitability Index: 9 Flame Spread Index: 0 Heat Developed Index: 0 Smoke Developed Index: 1

Note: The fire testing was conducted as per the requirements of AS 4254 Part 2:2012.

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R2.0 Product Comparison



Figure 3. Kingspan KoolDuct® Pre-Insulated Ductwork achieves R2.0 in just 46mm thickness.

What are the advantages of using Kingspan KoolDuct?

- Lightweight, compared to typical steel ducting, which could assist in refurbishment projects where the existing building structure has insufficient load capacity for new service loads.
- Could reduce the install cost by reducing labour and materials required.
- Thinner insulation compared to most glass wool insulation when comparing the same R-value. Meets R-value performance whilst taking less space.



Product Warranty

Standard Kingspan Insulation Warranty applies. Refer to Kingspan Insulation Warranty statement for further details. This is available online at [kingspaninsulation.co.nz](https://www.kingspaninsulation.co.nz); or call us on 0800 806 595; or email info@kingspaninsulation.co.nz

Kingspan Insulation NZ Limited (NZBN 9429045930393), reserves the right to amend product specifications without prior notice. The information contained in Kingspan's literature is given in good faith and based on good building practice but are not an exhaustive statement of all relevant information and are subject to any conditions contained in the Warranty. Recommendations for use should be verified as to the suitability and compliance with actual requirements, specifications and any applicable laws and regulations. All product dimensions and performance claims are subject to any variation caused by normal manufacturing process and tolerances.

Furthermore, as the successful performance of the relevant system depends on numerous factors outside the control of Kingspan (for example quality of workmanship and design), Kingspan shall not be liable for the recommendations in that literature and the performance of the Product. 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 us or visiting www.kingspaninsulation.co.nz E&OE

