

AUTEX RIGID DUCT LINER (ARD)

GreenStuf[®] Autex Rigid Duct Liner (ARD) consists of 100% polyester insulation material bonded to a durable facing. GreenStuf ARD has been engineered to improve the acoustic performance and thermal efficiency of residential and commercial rigid ducting.

APPLICATIONS

GreenStuf ARD is designed as a thermal and acoustic lining for all types of air conditioning systems.

Its high durability rating means it can be used for both low and high air-flow volumes, rated to velocities of up to 50m/second, with no additional protection. The tough black facing also helps protect the liner on-site prior to installation.

To ensure Building Code compliance, architects and building designers are advised to consult an engineer or the relevant NZ standards before specifying thermal and acoustic insulation products. For information and assistance please contact your GreenStuf account manager.

TECHNICAL

NZBC Compliance: GreenStuf ADW, when installed in accordance with the manufacturer's instructions, will satisfy the 50-year durability clause NZBC B2.3.1 (a). GreenStuf meets the relevant clauses of NZBC C3.4(a) Prevention of Fire, E3 Internal Moisture, F2 Hazardous Building Materials, and contributes to meeting H1 Energy Efficiency requirements.

Fire Regulations: GreenStuf insulation may not be suitable for all applications, as stipulated in the NZBC.

Please consult a fire engineer when specifying GreenStuf insulation or contact your local GreenStuf account manager or further information.

Thermal performance: GreenStuf ADW thermal performance has been tested internally to ASTM C518 using the procedures of ASTM C653 including the modifications specified in AS/NZS 4859.1.

The R-value of flexible ducting insulation is calculated according to the formula prescribed by H1/V3M3 and varies with the duct diameter. The declared R-value represents the minimum thermal resistance that can be achieved when installed in duct sizes varying from 100mm to 600mm diameter.

GreenStuf's e-foil facing enhances thermal performance by reflecting heat away from the surface, thereby enhancing the thermal resistance of the adjacent air film layer.

Acoustic performance: GreenStuf ADW will reduce noise transfer through ducting and help the attenuation of fan noise. Total noise and insertion loss in ducting depends on the absorption of the insulation material, coverage applied, and the design of the individual duct and its layout.

For further information please contact your local GreenStuf account manager.

Non-Toxic, Non-Allergenic, Non-Irritant: There are no known hazards with the use or handling of GreenStuf polyester.

Durability: GreenStuf has a 50 Year durability warranty.

Respiratory Safe: Polyester fibres used in GreenStuf are above 20 micrometres in size and will not reach the lower respiratory tract when inhaled.

Fire ratings:

ISO 9705: 1993

Classification: Group 1-S

Smoke Production Rate: <5.0m²/s

As required by NZBC C/VM2

FI 5550

Maximum service temperature: GreenStuf ADW can be used in environments with temperatures not exceeding 90°C.

Vermin: GreenStuf is naturally resistant to insect and vermin attack and does not contain chemical deterrents. Birds and vermin will live and nest in all bulk-fibre insulation materials if allowed access. In high-risk areas, GreenStuf recommends ensuring that the building perimeter is vermin proofed.

Non-corrosive: GreenStuf polyester is considered non-corrosive based on AS/NZS 4859.1 Standard for insulation.

VOC emissions: GreenStuf has been tested for chemical emissions in accordance with ASTM D5116 and is considered as a low VOC product.

VOC concentration: 0.01 mg/m³ (7 days).

GECA/GreenGuard Limit: 0.25 mg/m³ (7 days).

Water vapour sorption: ASTM C1104 / C1104M-13a.

Test conditions: 49°C, 95%RH. Water vapour absorbed and adsorbed after 4 days: 1.1% by weight.

Microbial resistance: ASTM G21-15. Growth Rating: 0 (No growth). GreenStuf insulation does not promote the growth of moulds and mildew.

MSDS: Material Safety Data Sheets (MSDS) are available on request from your GreenStuf account manager or can be downloaded from our website greenstuf.co.nz

Nominal Thickness: The products nominal thickness is the off-line manufactured thickness. Packaging, storage, and handling may affect the "out of the pack" thickness. This is not considered a manufacturing fault.



PRODUCT	THICKNESS	R-VALUE	THERMAL CONDUCTIVITY	DIMENSIONS	PER PACK	TOTAL AREA
ARD Liner Panels 25mm – White - Black Pre-Needled Topping (Pin Blend)	25mm	0.6	0.0385W/m.K	1200mm x 2400mm	8	23.04m ²
ARD Liner Panels 25mm – White - Black Pre-Needled Topping (Pin Blend)	25mm	0.6	0.0385W/m.K	1530mm x 2400mm	8	29.38m ²
R1.2 ARD Liner Panels 50mm - White - Black Pre-Needled Topping (Pin Blend)	50mm	1.2	0.0396W/m.K	1200mm x 2400mm	5	14.4m ²
R1.2 ARD Liner Panels 50mm - White - Black Pre-Needled Topping (Pin Blend)	50mm	1.2	0.0396W/m.K	1530mm x 2400mm	5	18.36m ²
R2.0 ARD Liner Panels 75mm - White - Black Pre-Needled Topping (Pin Blend)	75mm	2.0	0.0375W/m.K	1200mm x 2400mm	3	8.64m ²
R2.0 ARD Liner Panels 75mm - White - Black Pre-Needled Topping (Pin Blend)	75mm	2.0	0.0375W/m.K	1530mm x 2400mm	3	11.02m ²

If thickness is critical to a particular installation, please discuss your requirements with your GreenStuf account manager.

ISO certifications: GreenStuf is committed to Quality, Environmental, and Health & Safety best practice through our ISO 9001, ISO 14001, and ISO 45001 certified Quality, Environmental, and Health & Safety Management Systems.

Take back programme: GreenStuf is recyclable. We will gladly recycle used polyester insulation site waste, including offcuts and packaging, to help keep it out of landfills. Please ensure used polyester insulation and offcuts are in a general state of cleanliness in line with standard site conditions. Excessive contamination, such as metal and cement, will not be accepted. Please contact your account manager to request a Material Diversion Certificate prior to dropping insulation off. For more information on recycling GreenStuf, contact us on 0800 428 839.

Packaging recycling: GreenStuf packaging is recyclable LDPE 4. Please refer to your local recycling centres for drop-off and collection services.

Environmental: GreenStuf Autex Rigid Duct Liner (ARD) is manufactured using 100% polyester fibre and contains a minimum of 50% previously recycled fibre content (from PET plastic). All GreenStuf products are manufactured under Autex's Zero Waste Programme where all manufacturing waste is recycled back into the production process.

GreenStuf products are Global GreenTag GreenRate Level A certified and can be used to contribute to Green Star, Homestar, and WELL certification.

GreenStuf is also Declare certified to be Red List chemical-free and can be used in Living Building Challenge projects.

For more information, please contact your GreenStuf account manager, or visit our website greenstuf.co.nz.



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