

Ultra*Duct® Black Duct Board™

HVAC FIBERGLASS INSULATION

Ultra*Duct® Black Duct Board is a rigid board designed for fabrication into supply and return air HVAC duct work. The product can be used in heating and cooling systems which operate at velocities up to 5,000 fpm (25.4 m/s), temperatures up to 250°F (121°C) and maximum internal pressures of ± 2" (51mm) water gauge.

Features & Benefits

This product is strong, resistant to mold, bacteria and microbial growth, and easy to clean. In addition, Ultra*Duct Black provides excellent thermal properties, absorbs unwanted crosstalk, equipment and air rush noise, and exhibits low air flow resistance. It also meets all applicable fire resistance standards and building code requirements. The product can be precision cut using both manual and automatic cutting equipment.

Composition & Materials

Composed of resin-bonded glass fibers with a reinforced foil laminate air barrier/vapor retarder facing applied to the outside surface and a fiber glass textile mat bonded to the airstream surface. The airstream surface contains an EPA-registered antimicrobial agent in order to reduce the potential of microbial growth that may affect this product. The antimicrobial properties are intended to protect only this product.

Limitations

Ultra*Duct Black is not to be used under poured concrete slabs or to convey exhaust fumes, solids or corrosive gases. Ducts exposed to the weather must be weather protected and reinforced per industry standards. Ducts must not be used as vertical risers more than two stories in height. They must not be used adjacent to high-temperature heating coils. Insulation should be kept clean and dry during shipping, storage and system operation.

Size

See table on back for available sizes. Contact CertainTeed for availability and minimum order quantities.

Installation

Ultra*Duct Black must be fabricated and installed in accordance with the NAIMA or SMACNA Fibrous Glass Duct Construction Standards and all closure systems must meet the requirements of UL 181A. The installed duct system should be purged prior to occupancy to remove any loose material.

Availability and Cost

Manufactured and sold throughout the United States and Canada. For availability and cost, contact your local distributor or call CertainTeed Sales Support Group in Malvern, PA at 800-233-8990.

Warranty

Refer to CertainTeed's Limited Lifetime Warranty for Ultra*Duct Black Duct Board (30-34-035).

Maintenance

An inspection and maintenance program for the HVAC system is recommended to ensure optimum performance. Use NAIMA guidelines for duct cleaning methods and procedures.

Technical Services

Technical assistance can be obtained from your local CertainTeed sales representative and our Customer Experience team, 800-233-8990 or GetHelp@saint-gobain.com.

APPLICABLE STANDARDS, CODE COMPLIANCE

Model Building Codes:

- ICC

Material Standards: UL 181

- Class 1 Rigid Air Duct

Fire Safety Standards:

- NFPA 90A, NFPA 90B

FIRE RESISTANCE

Surface Burning Characteristics: UL 723 and ASTM E84

- Max. Flame Spread Index: 25
- Max. Smoke Developed Index: 50

PHYSICAL/CHEMICAL PROPERTIES

PROPERTY (UNIT)	TEST	VALUE
Operating Limits:	Temperature: ASTM C411	250°F / 121°C
	Air Velocity: UL181	Max. 5,000 fpm (25.4 m/s)
	Pressure:	± 2" wc (498 Pa)
	Temperature Range:	35°F-250°F (66°C-121°C)
Water Vapor Sorption:	ASTM C1104	≤2%
Water Vapor Transmission (Facing):	ASTM E96, Desiccant Method	0.02 perms (1.15 x 10 ⁻⁹ g/Pa•s•m ²)
Corrosion Resistance:	ASTM C665	Pass
Fungi Resistance:	ASTM C1338 & G21	Pass



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Available Sizes

PRODUCT TYPE	EDGE	THICKNESS		WIDTH		LENGTH		NO. BOARDS PER	
		IN	MM	IN	MM	IN	MM	CARTON	PALLET
475	Shiplap or Butt Edge	1	25	48	1219	120	3048	6	44
						96	2438	6	
800	Shiplap or Butt Edge	1-1/2	38	48	1219	120	3048	4	30
						96	2438	4	
	Butt Edge	2	51			120	3048	3	22

ACOUSTICAL PERFORMANCE

TYPE	PRODUCT THICKNESS		ABSORPTION COEFFICIENTS @ OCTAVE BAND CENTER FREQUENCIES (HZ)						NRC
	IN	MM	125	250	500	1000	2000	4000	
475	1	25	0.07	0.25	0.63	0.90	0.97	1.00	0.70
	1-1/2	38	0.10	0.42	0.91	1.04	1.04	1.04	
800	1-1/2	38	0.10	0.42	0.91	1.04	1.04	1.04	0.85
	2	51	0.17	0.63	1.10	1.05	1.04	1.06	

Sound absorption tested in accordance with ASTM C423 using Type A mounting per ASTM E795.

THERMAL PERFORMANCE

TYPE	PRODUCT THICKNESS		K-VALUE		C-VALUE		R-VALUE	
	IN	MM	BTU•IN H•FT²•°F	W M•°C	BTU H•FT²•°F	W M²•°C	BTU H•FT²•°F	W M²•°C
475	1	25			0.23	1.31	4.3	0.76
800	1-1/2	38	0.23	0.33	0.15	0.87	6.5	1.15
	2	51			0.12	0.65	8.7	1.53

Thermal conductance (C) and resistance (R) values are derived from the material thermal conductivity (K) value. Tested in accordance with ASTM C518 at 75°F (24°C) mean temperature.



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