

Ultra*Duct® Black Duct Board

PRODUCT DESCRIPTION

Basic Use: 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.



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 and 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.

Sizes: 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 (30-32-113).

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 either from your local CertainTeed sales representative, or by calling CertainTeed Sales Support Group in Malvern, PA at 800-233-8990.

Product Name	CertainTeed Ultra*Duct® Black Duct Board
Manufacturer	CertainTeed Corporation
Address	20 Moores Road Malvern, PA 19355
Phone	610-341-7000 • 800-233-8990
Fax	610-341-7571
Website	www.certainteed.com/insulation

TECHNICAL DATA

Applicable Standards

- 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
- Limited Combustible: NFPA 259
 - <3,500 btu/lb

Physical/Chemical Properties

- Thermal Performance:
 - See table on other side
- Acoustical Performance:
 - See table on other side
- Operating Limits:
 - Temperature: ASTM C411
 - Max. 250°F (121°C)
 - Air Velocity: UL 181
 - 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 $\leq 2\%$ by weight
- Water Vapor Transmission (Facing):
 - ASTM E96, Desiccant Method
 - Max. 0.02 perms
 - 1.15 x 10⁻⁹g/Pa•s•m²
- Corrosiveness: ASTM C665 / Pass testing
- Fungi Resistance:
 - ASTM C1338 / Pass testing
 - ASTM G21 / Pass testing

AVAILABLE SIZES									
Product Type		Thickness		Width		Length		No. Boards Per	
El	Edge	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	1½	38			120	3048	4	30
						96	2438	4	
	Butt Edge	2	51			120	3048	3	

ACOUSTICAL PERFORMANCE									
Product Type			Absorption Coefficients @ Octave Band Frequencies (Hz)						NRC
El	Thickness		125	250	500	1000	2000	4000	
	in.	mm							
475	1	25	0.07	0.25	0.63	0.90	0.97	1.00	0.70
800	1½	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	0.95

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

THERMAL PERFORMANCE								
Product			K-Value		C-Value		R-Value	
El	Thickness		Btu•in h•ft²•°F	W m•°C	Btu h•ft²•°F	W m²•°C	Btu h•ft²•°F	W m²•°C
	in.	mm						
475	1	25	0.23	0.033	0.23	1.31	4.3	0.76
800	1½	38			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.



CertainTeed Corporation

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