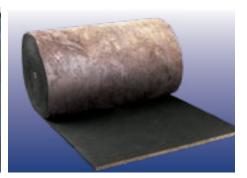
TECHNICAL INSULATION PRODUCTS SUBMITTAL FORM







Submitted to:			
Job name:			
Submitted by:			
Date:			

This Submittal Form is provided to assist you in specifying and selecting the proper CertainTeed Insulation products. Basic product descriptions and performance data are included. For further information or technical assistance, contact your local CertainTeed representative.

CertainTeed Corporation, 20 Moores Road, Malvern, PA 19355 Visit our website at: www.certainteed.com/technicalinsulation Customer Service 800-441-6720 • Fax 800-735-2381



SoftTouch™ Duct Wrap

A blanket-type insulation composed of glass fibers bonded together with a thermosetting resin. Product is available as unfaced or with FSK or PSK vapor retarder facing. On faced products, a 2" (51 mm) stapling/taping tab is provided on one edge.

Туре	Nominal Thickness	R	Installed R-Value
75	1"	3.8	3.0
75	11/2"	5.2	4.2
75	2"	6.9	5.7
75	21/8"	7.3	6.0
75	3"	10.2	8.3
75	4"	13.5	11.0
100	1"	3.8	3.0
100	11/2"	5.7	4.5
100	2"	7.6	6.1
150	1"	4.1	3.2
150	11/2"	6.2	4.8
150	2"	8.3	6.4

Complies with:

- ASTM C1290
 Type I Unfaced
 Type II Gray PSK Faced
 Type III FSK Faced and White
 PSK Faced
- ASTM C553
 Type I Type 75, 100 and 150
 Type II Type 100 and 150
 Type III Type 150
- CAN/CGSB-51.11-92
- ASTM C1136 (Facings)
 Type II FSK Faced and White PSK Faced
 Type IV - Gray PSK Faced
- Thermal performance determined by: ASTM C177 and/or ASTM C518
- GREENGUARD Certification Standards: Low-emitting products for the indoor environment. Meets product emission standard under GREENGUARD Gold.

Notes:

Wide Wrap Duct Wrap

A blanket-type insulation available in 5' widths - manufactured with glass fibers bonded together with a sustainable plant-based binder system. Available as unfaced or with FSK or PSK vapor retarder facing. On faced products, a taping tab is provided on one edge.

Туре	Nominal Thickness	R	Installed R-Value
75	1 ¹ / ₂ "	5.2	4.2
75	2"	6.9	5.7
75	21/8"	7.3	6.0
75	3"	10.2	8.3

Complies with:

- ASTM C1290
- ASTM C553 Type I Type III
- CAN/CGSB-51.11-92
- ASTM C1136

Notes:

ToughGard® R Duct Liner

A fiberglass acoustical liner for HVAC sheet metal duct systems operating at velocities up to 6,000 fpm (30.5 m/s) and temperatures to 250°F (121°C). Absorbs unwanted crosstalk, equipment and air rush noise.

Туре	Nominal Thickness	R
150	1"	4.2
150	11/2"	6.0
150	2"	8.0
200	1/2"	2.1

Complies with:

- ASTM C1071 Type I, roll insulation

Thermal Performance determined by:

- ASTM C177 or ASTM C518

Acoustic Performance determined by:

 ASTM C423 using Type A mounting per ASTM E795

ToughGard® T Textile Duct Liner A textile-type fiberglass acoustical liner for HVAC sheet metal duct systems operating at velocities up to 6,000 fpm (30.5 m/s) and temperatures to 250°F (121°C). Absorbs unwanted crosstalk, equipment and air rush noise.

Туре	Nominal Thickness	R
150	1"	4.0
150	11/2"	6.0
150	2"	8.0
200	1/2"	2.0
200	1"	4.2
200	11/2"	6.0
200	2"	8.0
300	1/2"	2.1
300	1"	4.4
300	11/2"	6.5
300	2"	8.3

Complies with:

ASTM C1071
 Type I, roll insulation
 Type II, sheet insulation

Thermal Performance determined by:

- ASTM C177 or ASTM C518 Acoustic Performance determined by:

- ASTM C423 using Type A mounting per ASTM E795

Notes:

ToughGard® Ultra*Round™ Spiral Duct Liner A high-quality acoustical and thermal insulation for lining the interior of spiral and round sheet metal ducts and plenums in HVAC systems operating at positive static air pressures, air velocities up to 6,000 fpm (30.5 m/s) and temperatures up to 250°F (121°C).

Туре	Nominal Thickness	R
SD	1"	4.3
LD	1"	4.3
SD	11/2"	6.5
LD	11/2"	6.5
SD	2"	8.7

SD - Small Diameter LD - Large Diameter Please refer to spec sheet for more information. Complies with:

- UL 181 for Factory Made Air Ducts and Air Connectors, Class 1 Rigid.

Thermal Performance determined by:
- ASTM C177 or ASTM C518
Acoustic Performance determined by:

- ASTM C423 using Type A mounting per ASTM E795

Notes:

Rigid Liner Board with ToughGard® Facing A rigid board-type acoustical and thermal fiberglass insulation for lining the interior of sheet metal ducts and plenums in HVAC systems operating at velocities up to 6,000 fpm (30.5 m/s) and temperatures up to 250°F (121°C). Quiets HVAC noise by absorbing unwanted crosstalk, equipment and air rush noise and reduces unwanted heat gain or loss.

Nominal Thickness	R
1"	4.3
11/2"	6.5
2"	8.7

Complies with:

- ASTM C1071

Type II, sheet insulation

Thermal Performance determined by:

- ASTM C177 or ASTM C518

Acoustic Performance determined by:

- ASTM C423 using Type A

mounting per ASTM E795

Product

Description

Product Details*

Applicable Standards

Ultra*Duct™ Black Duct Board

A resin-bonded glass fiber board with a reinforced foil laminate air barrier/vapor retarder on the outside surface. Ultra*Duct Black is designed for fabrication into supply and return air duct work for HVAC systems operating at velocities up to 5,000 fpm (25.4 m/s) and temperatures up to 250°F (121°C).

Туре	Nominal Thickness	R
475	1"	4.3
800	1"	4.3
800	11/2"	6.5
800	2"	8.7

Complies with:

 UL 181 for Factory Made Air Ducts and Air Connectors, Class 1 Rigid.

Thermal Performance determined by:

- ASTM C177 or ASTM C518
- Acoustic Performance determined by:
- ASTM C423 using Type A mounting per ASTM E795

Notes:

Marine Thermal Blanket

Used to insulate rectangular and round HVAC ductwork or as a thermal and acoustical blanket in marine and general applications. Available unfaced or with FSK vapor retarder facing. Faced products have stapling/taping tab on one edge.

Type	Nominal Thickness	R	Installed R-Value
75	1"	3.8	3.0
75	11/2"	5.2	4.2
75	2"	6.9	5.7
75	21/8"	7.3	6.0
75	3"	10.2	8.3
100	1"	3.8	3.0
100	11/2"	5.7	4.5
100	2"	7.6	6.1
150	1"	4.1	3.2
150	11/2"	6.2	4.8
150	2"	8.3	6.4

Material Standards:

- ASTM C1290
- ASTM C553 Type I, Type 75 Duct Wrap Type II, Type 100 & 150 Duct Wrap Type III, Type 150 Duct Wrap
- CAN/CGSB-51.11-92
- ASTM C1136 Type II: FSK

Notes:

CrimpWrap™ Crimped Pipe & Tank Wrap

This product is made from a continuous fiberglass blanket. It is a unique flexible insulation composed of variably oriented glass fibers firmly bonded together with a thermosetting resin. Product is available with either foil scrim or white ASJ vapor retarder facings.

Thickness Diameter	Minimum Nominal Pipe
1"	6"
11/2"	8"
2	10"
21/2"	12"
3"	16"
31/2"	18"
4"	20"

Complies with:

- ASTM C612 Type IA Type II, except for thermal conductivity at 75°F mean temperature
- ASTM C1393 Type IIIA, Category 2

Thermal Performance determined by:

- ASTM C177 and/or ASTM C518

High Temperature Blanket

Blanket insulation composed of rotary glass fibers bonded with a thermosetting resin and formed into plain, flexible and resilient thermal insulation. Designed for use on industrial equipment, panel systems, pipe fittings and tanks operating at temperatures up to 1000 degrees (538°C).

Applicable Standards

Standard for Mineral Fiber Thermal Insulation for Buildings

- CAN/ULC-S702-09 Type I (pre-formed insulation without a membrane)
- ASTM C553 Types I, II, V and VI
- CAN/CGSB 51.11 Type 2 Class 4 Density
- Type 1: 1.25 lb/ft3
- Type 2: 2.25 lb/ft3

Туре	Width	Nominal Thickness
		1"
		2"
	0.4"	21/2"
	24"	3"
		31/2"
		4"
		1"
		2"
Type 1:	7.011	21/2"
Rolls	36"	3"
		31/2"
		4"
		1"
		2"
	70"	21/2"
	72"	3"
		31/2"
		4"
		1"
		2"
Type 1:	0.411	21/2"
Batts	24"	3"
		31/2"
		4"
		1"
		11/2"
		2"
Type 2:	24"	21/2"
Batts		3"
		31/2"
		4"

Product Description Product Details*

CertaPro™ Commercial Board

Flexible to rigid boards for residential and commercial construction. Manufactured unfaced, with a reinforced white kraft and foil laminate (ASJ) or an aluminum foil, glass scrim kraft laminate (FSK).

Available in four densities:

CB 150: Light weight, used where flexibility is desired.

CB 225: Semi-rigid board type.

CB 300: Board type with greater rigidity and compressive strength for a smoother, more abuseresistant surface.

CB 600: A rigid board product.

Applicable Standards

Product	ASTM C612	ASTM C553
CB 150	Type IA	Types I, II & III
CB 225	Type IA	_
CB 300	Types IA & IB	ı
CB 600	Types IA & IB	_

ASTM C1136 (Facing only) Type II: FSK; Type I: ASJ

Туре	Thickness	R	Facing
110	1 ¹ /2"	6.0	
110	3 ¹ /2"	14.0	Unfaced
110	6"	25.0	only
150	11/2"	6.0	
150	2"	8.0	
150	2 ¹ /2"	10.0	Unfaced
150	3"	12.0	only
150	3 ¹ /2"	14.0	
150	4"	16.0	
180	1 ¹ /2"	6.0	
180	2"	8.0	Unfaced
180	2 ¹ /2"	10.0	FCV
180	3"	12.0	FSK
180	3 ¹ /2"	14.0	ASJ
180	4"	16.0	
225	1"	4.2	
225	1 ¹ /2"	6.3	
225	2"	8.3	Unfaced
225	21/2"	10.4	FSK
225	3"	12.5	٨٠٠
225	31/2"	14.6	ASJ
225	4"	16.6	
250	1"	4.2	Unfaced FSK
250	2"	8.3	ASJ
300	1"	4.3	
300	1 ¹ /2"	6.5	Unfaced
300	2"	8.7	Uniaced
300	2 ¹ /2"	10.9	FSK
300	3"	13.0	ASJ
300	3 ¹ /2"	15.2	733
300	4"	17.4	
450	1"	4.5	Unfaced FSK
450	2"	9.1	ASJ
600	1"	4.5	
600	1 ¹ /2"	6.8	Unfaced only
600	2"	9.1	Jilly

Metal Building Insulation 202-96

A flexible blanket insulation furnished in rolls and intended to be laminated on one side with a suitable vapor retarder. It is used as a thermal and acoustical insulation in the roofs and sidewalls of preengineered metal buildings and post frame construction. Plain, unfaced Metal Building Insulation 202-96 may be used as an additional layer of insulation over laminated metal building insulation in systems or over the top of BUR or single ply roofs in metal reroof applications to achieve greater thermal performance.

Nominal Thickness	Pre Lamination	Post Lamination	Length
33/8"	10.8	10	100′
3 ³ /4"	11.9	11	100′
4 ³ /8"	14.0	13	75′
5 ¹ /2"	17.3	16	50′
6 ³ /8"	20.5	19	50′
6 ³ /4"	22.7	21*	45′
8"	27.0	25*	30′
91/2"	32.4	30*	25′

All types come in the widths 36", 48", 60", 72"

Metal Building Insulation 202-96 has physical properties that regularly meet the requirements of the following specifications:

ASTM C991, Type I Plain and NAIMA 202-96. (Rev. 2000)

Notes:

Universal Blanket

Available in five different densities, Universal Blanket can be fabricated into a variety of shapes and sizes to fit almost any application. Designed for general purpose applications where a flexible thermal, acoustical insulation is required. Will withstand temperatures up to 450 degrees.

Туре	Nominal Thickness
501	11/2"
501	2"
501	3"
501	4"
751	11/2"
751	2"
751	3"
751	4"
1001	1"
1001	11/2"
1001	2"
1001	3"
1001	4"
1501	1"
1501	11/2"
2001	1"

Complies with:

- ASTM C553 Type I

Type II
Type III

- ASTM C1139

Type II, Grades 1, 2, 3 & 4
- MIL-22023D, Type I & Type II

Fire Safety Standards:

- NFPA 90A
- NFPA 90B

^{*} Made to order

OEM Acoustical Board

Typically used for office furniture, acoustical panels, baffles, architectural panels and ceiling panels. Available in varying densities - used by fabricators who process it into finished acoustical insulation products.

Туре	Nominal Thickness
300	1"
300	11/2"
300	2"
300	3"
300	4"
600	1"
600	11/2"
600	2"

Material Standards:

- OEM 300 (ASTM C612), Type IA & IB

- OEM 600 (ASTM C612), Type IA & IB Fire Resistance:

- Fire Hazard Classification: (ASTM E84, UL 723, NFPA 255)

- Max. Flame Spread Index 25

- Max. Smoke Developed Index 50

Notes:

CertaPro™ AcoustaBoard™ Black

Rigid or semi-rigid fiberglass board with a black mat facing for acoustical applications in sound studios or other acoustically sensitive applications requiring a black exposed surface.

Available in two densities: Semi-rigid board type.

Board type with greater rigidity and compressive strength for a smoother, more abuse-resistant surface.

Туре	R	Thickness
225	4.3	1"
225	6.5	11/2"
225	8.7	2"
300	4.3	1"
300	6.5	11/2"
300	8.7	2"

Product	ASTM C612
Type 225	Type IA
Type 300	Types IA & IB

Notes:

CertaPro™ AcoustaBlanket™ Black

1/2" to 2" thick black fiberglass blanket with a durable fire-resistant black composite surface used for acoustical control applications in theaters, sound studios or other acoustically sensitive applications requiring a black exposed surface.

Type	R	Thickness
150	4.2	1"
150	6.3	11/2"
150	8.3	2"
200	2.1	1/2"

Complies with:

- ASTM C553 Type I and II

Acoustic Performance determined by:

ASTM C423 using Type A mounting

Thermal resistance determined by:

- ASTM C177 or C518

Product Characteristics

Sound Transmission Loss

CertainTeed's fiberglass products can reduce sound transmission when properly installed in construction assemblies and can add from 3 to 12 points to the STC rating depending on the type of assembly. The actual rating is dependent on the workmanship, mass of total material, thickness of insulation and the air tightness of the construction. In assemblies, separation of the wall

surfaces plus the addition of insulation in stud cavities are the most effective means of reducing sound transmission. This may be accomplished by installing resilient channels on one side of the partition, or with staggered or double wall constructions. The table on the following page lists some typical sound rated partition assemblies.

Fire Safety

CertainTeed Unfaced Fiberglass Building Insulation products are noncombustible per ASTM E136 test criteria. Many building codes require that foam plastic insulation be covered with an approved 15-minute thermal barrier. Consult local building code officials to ensure the application meets local building codes and regulations.

Surface Burning Characteristics

These products have the following maximum flame spread and smoke developed ratings when tested per ASTM E84:

Product	Flame Spread	Smoke Developed
SoftTouch™ Duct Wrap	25	50
Wide Wrap Duct Wrap	25	50
ToughGard® R Duct Liner	25	50
ToughGard® T Textile Duct Liner	25	50
ToughGard® Ultra*Round™ Spiral Duct Liner	25	50
Rigid Liner Board with ToughGard® Facing	25	50
Ultra*Duct™ Black Duct Board	25	50
Marine Thermal Blanket	25	50
CrimpWrap™ Crimped Pipe & Tank Wrap	25	50
High Temperature Blanket	25	50
CertaPro™ Commercial Board	25	50
Metal Building Insulation	25	50
Universal Blanket	25	50
OEM Acoustical Board	25	50
CertaPro™ AcoustaBoard™ Black	25	50
CertaPro™ AcoustaBlanket™ Black	25	50

FSK-25 and standard foil-faced insulation products have a critical radiant flux flame propagation resistance equal to or greater than 0.12 w/cm².

Approximate STC Ratings

_	No Insulation			3½" of CertainTeed Fiberglass Insulation Batts				
Steel Stud Partitions With Gypsum Wallboard Facings (1/2" & 5/8")		O.C. Studs ⁵ /8"		′ O.C. Studs ⁵ /8″		O.C. Studs ⁵ /8"	24" (3 ⁵ / ₈ " S ¹ / ₂ "	
Single layer facings	36	39	36	39	45	47	48	50
Double layer one side, single layer other side	39	44	42	47	51	52	52	55
Double layer each side	45	48	50	52	55	57	55	58

Guide Specifications for CertainTeed Fiberglass Thermal and Acoustical Insulations

Note to the specifier: Provide information as required; delete inappropriate items and fill in where indicated.

This guide specification applies to thermal and acoustical insulation in walls, ceilings and floors. It follows Construction Specifications Institute (CSI) format.

PART 1 - GENERAL

1.01 Work Included

State type of insulation and where it is to be installed.

1.02 Related Work

State if separate vapor retarder and/or air barrier is to be installed.

1.03 References

Include appropriate insulation standards.

PART 2 - PRODUCTS

2.01 Acceptable Manufacturers CertainTeed Corporation

2.02 Materials

Thermal Insulation

insulation for (cei	iings) (walls) (1100rs) (ducts
shall be CertainTe	eed
i	nches thick,
with R-Value of _	
or Insulation for (ceilings) (or other
approved location	n) shall be CertainTeed
i	nstalled at minimum of
i	nches thick,
with	bags/1,000 sq. ft.
for R-Value of	

Sound Control Insulation

Insulation for (ceilings) (walls) (floors) shall be CertainTeed ______.

PART 3 - EXECUTION

3.01 Preparation

Verify that mechanical and electrical services in (ceilings) (walls) (floors) have been installed and tested and, if appropriate, verify that adjacent materials are dry and ready to receive insulation.

3.02 Installation

Installation shall be in accordance with CertainTeed's instructions.

Guide Specifications for CertainTeed Technical Fiberglass Insulation Products

PART 1 - GENERAL

1.01 Summary

- A. This section includes commercial building thermal/acoustical insulation for application to:
- 1. Exterior building walls;
- 2. Interior partition walls, shaft walls, and other interior surfaces;
- 3. Ceiling suspension systems.

1.02 Submittals

- A. Prepare and submit for approval information as required by the conditions of the contract and Division 1 Submittals sections.
- B. Submit product data for each thermal and acoustical insulation product specified.

1.03 Quality Assurance

A. Installers shall be qualified to perform work of this section and shall be experienced in the performance of installation operations as appropriate to the project.

1.04 Delivery and Storage

A. Deliver all insulation materials and accessories to the project site in manufacturer's original, unopened, undamaged packaging, with all identification labels intact. Store in a safe place protected from dust, dirt, moisture and physical abuse before and during installation.

PART 2 - PRODUCTS

2.01 Approved Manufacturer and Products

- A. All thermal/acoustical insulation materials shall be in accordance with Division 1 Submittals, manufactured by CertainTeed Corporation, including but not limited to:
- SoftTouch™ Duct Wrap
- 2. Wide Wrap Duct Wrap
- 3. ToughGard® R Duct Liner
- 4. ToughGard® T Textile Duct Liner
- 5. ToughGard® Ultra*Round™ Spiral Duct Liner
- 6. Rigid Liner Board with ToughGard® Facing
- 7. Ultra*Duct™ Black Duct Board

- 11 -8. Marine Thermal Blanket 14. OEM Acoustical Board 9. CrimpWrap™ Crimped Pipe Type: 15. CertaPro™ AcoustaBoard™ Black & Tank Wrap Туре: ___ 10. High Temperature Blanket 11. CertaPro™ Commercial Board, R-Value: 16. CertaPro™ AcoustaBlanket™ Black Unfaced, FSK Faced, ASJ Faced 12. Metal Building Insulation Type: _____. 13. Universal Blanket R-Value: 14. OEM Acoustical Board 15. CertaPro™ AcoustaBoard™ Black **PART 3 - EXECUTION** 16. CertaPro™ AcoustaBlanket™ Black 3.01 Inspection B. Where applicable, specify product A. Verify that all insulation may be thicknesses, length/width installed in accordance with project dimensions and density to meet drawings, design requirements and thermal and acoustical performance fire ratings. specifications. B. Confirm that all exterior and C. Specify type of vapor retarder interior wall, partition, and floor/ facing to meet water vapor ceiling assembly construction has transmission and fire rating been completed to the point where specifications. the insulation may be correctly installed. 2.02 Products and Applications 3.02 Installation 1. SoftTouch™ Duct Wrap A. Install all insulation in compliance Туре: ___ R-Value: ___ with manufacturer's published instructions and good 2. Wide Wrap Duct Wrap workmanship so that acoustical Type: and thermal performance R-Value: ____ requirements are met. 3. ToughGard® R Duct Liner Туре: _____. 3.03 Safety Precautions R-Value: 4. ToughGard® T Textile Duct Liner Type: _____. R-Value: ____ 5. ToughGard® Ultra*Round™ Spiral

Duct Liner

R-Value: 6. Rigid Liner Board with

R-Value:

ToughGard® Facing

8. Marine Thermal Blanket

7. Ultra*Duct™ Black Duct Board

9. CrimpWrap™ Crimped Pipe &

10. High Temperature Blanket

12. Metal Building Insulation

R-Value: _____

11. CertaPro™ Commercial Board, Unfaced, FSK Faced, ASJ Faced

Туре: ____

Type: _ R-Value: ___

Type:

Tank Wrap Thickness:

R-Value:

Туре: ___ R-Value: ___

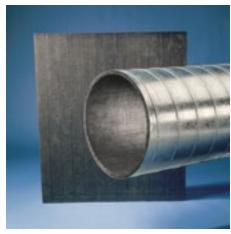
R-Value: __ 13. Universal Blanket Type: ___

- A. Properly protect insulation contractor's employees during installation of all insulation. Protection shall include proper attire when handling and applying insulation materials, and shall include but not be limited to gloves, hard hats, disposable dust respirators, and eye protection.
- B. Conduct all job site operations in compliance with applicable provisions of the Occupational Safety and Health Act and/or local safety and health codes and regulations.



For every insulation challenge, there's a CertainTeed solution.







Mechanical

HVAC

OEM







Metal Building Insulation

Marine & Industrial

Equipment

learn more at: certainteed.com/technicalinsulation









