Quietflex®

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YOUR FIBERGLASS SOLUTIONS PROVIDER

PRODUCT CATALOG

LNG

LNG Resilient Blanket

Product Specifications and Key Features

Quietflex® Brand LNG Resilient Blanket is designed to offer excellent resiliency and compression ability, as well as increased tensile strength, making it a great fit for LNG tank or cryogenic tank applications. This product can be engineered and customized to meet your specific requirements for each project. Available in amber color.

Advantages

- **Increased Tensile Strength**
  Ideally suited for resilient blanket applications which require the glass to support its own weight.
- **Excellent Resiliency and Compression Characteristics**
- **High Thermal Efficiency**
  Reduces heat transfer, lowering energy consumption.
- **Compression Packed**
  Saves freight costs, storage space and protects against damage.

LNG Suspended Deck Blanket

Product Specifications and Key Features

Quietflex® Brand LNG Suspended Deck Blanket is made to reduce blanket settlement, requiring less material needed to achieve a specific overall depth of fiberglass. This strength is a result of using textile-type glass fibers and a thermal setting phenolic resin. The glass fibers and resin are combined in an air lay system producing a random fiber orientation. Available in amber color.

Advantages

- **Enhanced Recovery/Resiliency**
  For reduced settlement and less material usage.
- **High Thermal Efficiency**
  Reduces heat transfer, lowering energy consumption.
- **Resistant to Bacterial and Fungal Growth**
- **Compression Packed**
  Saves freight costs, storage space and protects against damage.

LNG Tank Insulation Components

- **Nozzle Glass**
- **Tank Bottom Fiberglass**
- **Die-Cut Parts**

HVAC Equipment
Versatile Blanket

Product Specifications and Key Features

Quietflex® Brand Versatile Blanket is produced using textile-type glass fibers that have been chopped to a length of 2 to 6 inches and bonded with a thermal setting phenolic resin. The glass fibers and the resin are combined in an air lay system that produces a random fiber orientation for exceptional strength and resiliency, coupled with both thermal and acoustic performance. Available in amber or black color. Facing options include FSK or black mat facing.

Advantages

- **High Thermal Efficiency**
  Reduces heat transfer, lowering energy consumption.
- **Resilient**
  Recovers to full thickness.
- **High Acoustical Performance**
  Reduces unwanted noise.
- **Excellent Bond Strength**
  Blanket resists separation.
- **Increased Tensile Strength**
  For high tensile applications. Stands up to lamination and other fabrication processes.
- **Resistant to Vibration**
- **Ease of Handling and Fabrication**
  Easily cut in die-cut press or with a knife.
- **Resistant to Bacteria and Fungal Growth**
- **Compression Packed**
  Saves freight costs, storage space and protects against damage.

Applications

- **HVAC Equipment**
  Fan Coils
  Air Conditioners
  Furnaces
  Other HVAC Equipment

Technical Data

DESCRIPTION	RESULTS	SPECIFICATION
Temperature Limit (Unfaced)	450°F	ASTM C 411
Fire Hazard Classification-Flame Spread Index	Less than 25	ASTM E 84 and UL 723
Fire Hazard Classification-Smoke Developed Index	Less than 50	ASTM E 84 and UL 723
Water Vapor Sorption	Less than 1% by Weight	ASTM C 1104
Corrosion Resistance	Meets Requirements with Aluminum, Steel or Copper	ASTM C 665
Microbial/Fungal Growth	Does Not Support the Growth of Mold, Fungi and Bacteria	ASTM C 1338, G 21, G 22
Limited Combustible	Less than 3500 BTU/lb	NFPA 90A and 90B
Odor	Pass	ASTM C 1304

Thermal Values (ASTM C 518)

DENSITY	THICKNESS	K-VALUE	C-VALUE	R-VALUE
lb/ft³	Inch	Btu-in/h-ft²-°F	Btu/h-ft²-°F	h-ft²-°F/Btu
0.75	1.0	0.33	0.33	3.0
	1.5		0.22	4.5
	2.0		0.17	6.1
1.00	1.0	0.30	0.30	3.3
	1.5		0.20	5.0
	2.0		0.15	6.7
1.50	0.5	0.26	0.52	1.9
	1.0		0.26	3.8
	1.5		0.17	5.8
	2.0		0.13	7.7
2.00	0.5	0.24	0.48	2.1
	1.0		0.24	4.2
	1.5		0.16	6.3
	2.0		0.12	8.3
3.00	0.5	0.23	0.46	2.2
	1.0		0.23	4.3
	1.5		0.15	6.5

Acoustical Value

(Sound Absorption Coefficients, 1/3 Octave Bands, ASTM C 423, Type A Mounting)

DENSITY	THICKNESS	ABSORPTION COEFFICIENTS – SABINS/FT²						
lb/ft³	Inch	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	NRC
1.50	0.50	0.06	0.18	0.32	0.52	0.66	0.73	0.40
	0.75	0.11	0.24	0.41	0.61	0.76	0.81	0.50
	1.00	0.16	0.36	0.57	0.90	0.90	0.95	0.70
2.00	0.50	0.06	0.16	0.31	0.53	0.70	0.77	0.40
	0.75	–0.02	0.25	0.43	0.74	0.87	0.93	0.55
	1.00	0.13	0.34	0.67	0.98	0.98	0.98	0.75
3.00	1.00	0.18	0.37	0.79	1.05	1.00	1.00	0.80

Thickness and Density

THICKNESS	MIN DENSITY	MAX DENSITY
Inch	lb/ft³	lb/ft³
0.5	1.50	3.00
1.0	1.00	3.00
1.5	0.75	3.00
2.0	0.75	2.40
2.5	0.75	1.90
3.0	0.75	1.60
3.5	0.75	1.35
4.0	0.75	1.20
5.0	0.75	0.95
6.0	0.75	0.80

Quietflex® can make custom thickness and/or density to fit exactly to your application. Available in either amber or black color. Board products can be made in 3lbs/ft³ density on special request.

Packaging

- **Packed and Sealed in a Polyethylene Bag**
- **Vacuum Packed**
- **Polyethylene Sleeve Placed Over the Roll**
- **Shrink Wrapped 4 Rolls to a Bundle**

Size

WIDTH	LENGTH	THICKNESS
Minimum: 24″ Maximum: 120″	Length will be based on density and width to keep roll weights under 130lbs.	Between 1/2″ and 6″

Duct Liner

Product Specifications and Key Features

Quietflex® Brand Textile Duct Liner is a black mat faced and edge coated liner made from textile-type glass fibers bonded with thermosetting resin. A tough, durable black facing is applied during the manufacturing process to insure a strong, long lasting bond between the base blanket and the facing.

Quietflex® Brand Textile Duct Liner is used as a lining for sheet metal ducts in HVAC systems to enhance environmental quality by absorbing unwanted noise within the duct and increasing indoor comfort and energy efficiency by decreasing heat loss or gain through the duct walls.

Thermal Values

K Thermal Conductivity | **C** Conductance | **R** Resistance (ASTM C 518)

NOMINAL THICKNESS*		DENSITY		THERMAL CONDUCTIVITY (K)		C-VALUE		R-VALUE	
Inch	mm	pcf	kg/m³	Btu-in/hr-ft²-°F	W/m-°K	Btu/hr-ft²-°F	W/m²-°K	hr-ft²-°F/Btu	m²-°K/W
0.50	13	2.0	32	0.26	0.038	0.48	2.70	2.1	0.37
1.00	25	1.5	24	0.30	0.044	0.30	1.72	3.3	0.58
1.00	25	2.0	32	0.26	0.038	0.24	1.35	4.2	0.74
1.50	38	1.5	24	0.30	0.043	0.20	1.14	5.0	0.88
1.50	38	2.0	32	0.27	0.039	0.17	0.95	6.0	1.06
2.00	51	2.0	32	0.27	0.038	0.12	0.71	8.0	1.41

*Actual thicknesses are 0.55" (nominal 0.5"), 1.1" (nominal 1.0", 2.0 pcf), 1.6" (nominal 1.5", 2.0 pcf), and 2.1" (nominal 2.0")

Acoustical Value (Sound Absorption Coefficients, 1/3 Octave Bands, ASTM C 423, Type A Mounting)

NOMINAL THICKNESS		DENSITY		ABSORPTION COEFFICIENTS – SABINS/FT²						
Inch	mm	pcf	kg/m³	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	NRC*
0.50	13	2.0	32	0.05	0.09	0.23	0.48	0.61	0.66	0.35
1.00	25	1.5	24	0.24	0.31	0.46	0.66	0.77	0.81	0.55
1.00	25	2.0	32	0.21	0.34	0.57	0.84	0.92	0.83	0.65
1.50	38	1.5	24	0.21	0.51	0.71	0.87	0.92	0.87	0.75
1.50	38	2.0	32	0.37	0.57	0.83	1.00	1.01	0.92	0.85
2.00	51	2.0	32	0.42	0.73	1.03	1.12	0.98	0.90	0.95

*Noise Reduction Coefficient

Physical Properties

PROPERTY	METHOD OF TESTING	VALUE
Maximum Operating Temperature	ASTM C 411	350°F (177°C)
Maximum Air Velocity	UL 181 Air Erosion Test – ASTM C 1071	6000 FPM (30.5m/sec)
Flame Spread Index	ASTM E 84	Less than 25
Smoke Developed Index	ASTM E 84	Less than 50
Thermal Resistance	ASTM C 518	See Table
Water Vapor Sorption	ASTM C 1104	Less than 1% by weight
Microbial Growth	ASTM C 1338, G 21, G 22	Does Not Support the Growth of Mold, Fungi and Bacteria
Corrosion Resistance (Steel Only)	ASTM C 665	Pass
Limited Combustible	NFPA	Less than 3500 Btu/lb
Odor	ASTM C 1304	Pass
Air Erosion	ASTM C 1071 / UL 181	2000 FPM and 6000 FPM (Tested at 57MPH and 170MPH)
Sound Absorption	ASTM C 423	See Table

Duct Wrap

Product Specifications and Key Features

Quietflex® Brand Duct Wrap is a foil faced fiberglass bonded with thermosetting resin. FSK facing is applied during the manufacturing process to insure a strong, long lasting bond between the base blanket and the facing.

Quietflex® Brand Duct Wrap is an external insulation for sheet metal ducts in HVAC systems to enhance environmental quality by absorbing unwanted noise within the duct and increasing indoor comfort and energy efficiency by decreasing heat loss or gain through the duct walls. All facings are supplied with a single 2 inch (51mm) stapling tab.

Physical Properties and Specification Compliance

PROPERTY	METHOD OF TESTING	VALUE
Operating Temperature	ASTM C 411	Up to 250°F (121°C)
Microbial Growth	ASTM C 1338	Does Not Support the Growth of Mold, Fungi and Bacteria
Flame Spread Index	ASTM E 84	Less than 25
Smoke Developed Index	ASTM E 84	Less than 50
Water Vapor Sorption	ASTM C 1104	Less than 5% weight at 120°F (49°C), 95% R.H.
Potential Heat	NFPA 259	0, Does not ignite
Corrosion Resistance	ASTM C 665	Pass for steel
Specification Compliance	ASTM C 1290	Flexible Fibrous Glass Blanket Insulation Used to Externally insulate HVAC Ducts, Type III
	ASTM C 553	Mineral Fiber Blanket Thermal Insulation for Commercial and Industrial Applications, Type I and II
	ASTM C 1136	Flexible, Low Permeance Vapor Retarders for Thermal Insulation

Thermal Performance

NOMINAL THICKNESS	THERMAL CONDUCTIVITY (K)	R-VALUE	
		hr-ft²-°F/Btu	
Inch	Btu-in/hr-ft²-°F	Out of Package	Installed*
1.50	0.28	5.2	4.2
2.20	0.28	7.7	6.0
3.00	0.28	10.4	8.3

*Assumes 25% compression

Availability

NOMINAL THICKNESS	WIDTH	LENGTH	FACING
Inch	Inch	Feet	
1.50	48	100	50" FSK
2.20	48	75	50" FSK
3.00	48	50	50" FSK

Transportation

Semi-Cured

Product Specifications and Key Features

Quietflex® Brand Semi-Cured fiberglass blanket is produced in a semi-cured state, ideal for molding applications. Textile-type glass fibers have been chopped to a maximum length of 6 inches and bonded with a thermal setting phenolic resin. The glass fibers and the resin are combined in an air lay system that produces a random fiber orientation ideally suited for hot face press molding operations. Available in amber color.

Advantages

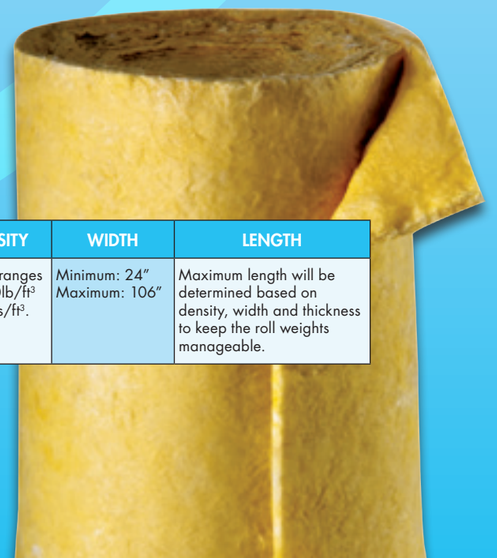
- **Excellent Acoustical Containment**
  Reduces unwanted noise.
- **6 Month Shelf Life***
  Eliminates waste of unused product.
- **High Thermal Efficiency**
  Reduces heat transfer.
- **Increased Structural**
  Strength and Rigidity.
- **Easy to Handle and Mold**
  High tensile strength allows blanket to be pulled off roll easily.
- **Low Dust**
- **Heat Resistant and Low Flammability**
- **Very Low Moisture Absorption**
- **Compression Packed**
  Saves freight costs, storage space and protects against damage.

Applications

- **Automotive**
  Hood Liners
  Dash Insulators
  Engine Cover
  Transmission Cowling
  Other Automotive Molded Components
  Other Acoustical Components

Recommended Storage Conditions

- This product is affected by ambient conditions of heat, light and humidity.
- Storage Conditions: It is recommended that this product be kept in a dry storage area kept at 40°F–80°F with a relative humidity of 25%–90% and out of direct sunlight.



Technical Data

DESCRIPTION	RESULTS
Glass Fiber Composition	E-Glass (Textile Glass)
Glass Fiber Diameter	6–10 Microns
Binder Content	Typically 25% or Application Specific
Binder Color	Yellow (Amber)
Shelf Life	6 Months (When packaging integrity is maintained)

*Shelf Life: When Quietflex® Brand Semi-Cured Blanket is kept in the original packaging, molding characteristics are maintained for a maximum of six months.

Size and Thickness

THICKNESS	DENSITY	WIDTH	LENGTH
Standard product is 1" thick, but custom thickness can be made to meet customer specifications.	Density ranges from 1.0lb/ft^3 to 3.0lbs/ft^3.	Minimum: 24" Maximum: 106"	Maximum length will be determined based on density, width and thickness to keep the roll weights manageable.

Quietflex can make custom thickness and/or density to fit customer application. Available in amber.

Railcar Blanket

Product Specifications and Key Features

Quietflex® Brand Railcar Blanket is produced using textile-type glass fibers that have been chopped to a length of 2 to 6 inches and bonded with a thermal setting phenolic resin. The glass fibers and the resin are combined in a unique air lay system that produces a random fiber orientation for exceptional strength, resiliency and both thermal and acoustic performance. Available in amber color.

Advantages

- **High Thermal Efficiency**
  Reduces heat transfer, lowering energy consumption.
- **Resilient**
  Recovers to full thickness.
- **Resistance to Vibration**
- **Excellent Bond Strength**
  Blanket resists separation.
- **Increased Tensile Strength**
  For high tensile applications and stands up to lamination and other fabrication processes.
- **Ease of Handling and Fabrication**
  Easily cut with a knife.
- **Resistant to Bacterial and Fungal Growth**
- **Compression Packed**
  Saves freight costs, storage space and protects against damage.

Applications

- **Rapid Transit**
- **Rail Car Tanks**
- **Light Rail Cars**
- **Insulated Tanks**

Specification Compliance

- **ASTM E 162**
- **ASTM E 662**
- **NFPA 259**
- **BSS 7239**

Die-Cut & Fabrication Services

Key Advantages and Markets

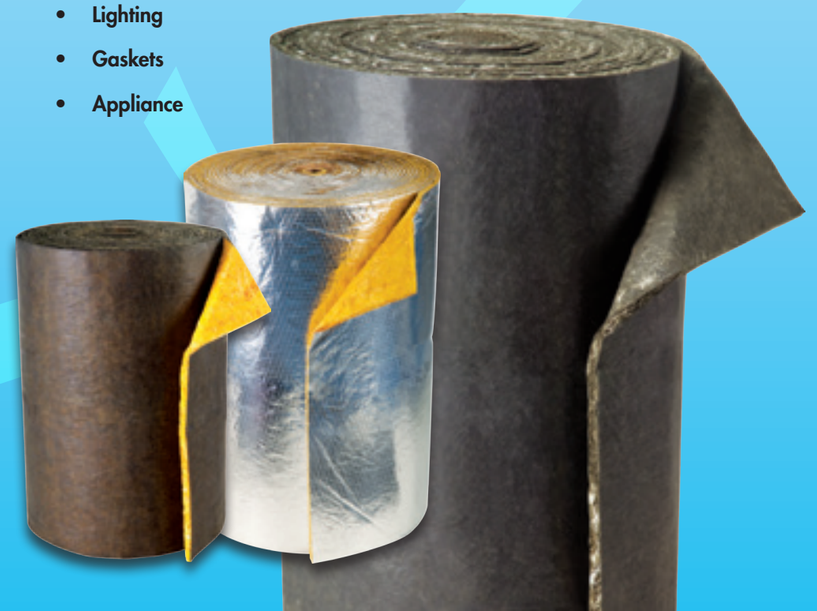
Quietflex® Brand Die-Cut and Fabrication Services offers other services to meet the various needs of our customers. The ability to laminate, die-cut and offer compression packaging in the same facility where the fiberglass blanket is manufactured offers tremendous convenience to the end user. Just send in your requirements and Quietflex® will be happy to work with you to customize the solution for your needs.

Advantages

- **One Stop Shop for Fiber Glass and Fabrication** Minimizing sourcing needs and scrap.
- **Laminating Capabilities** UL rating capable.
- **68"x68" Die-Cut Capability**
- **Multiple Press Capacity**
- **Compression Packed Shipping**

Markets

- **HVAC**
- **LNG**
- **Lighting**
- **Gaskets**
- **Appliance**



Acoustic Baffles & Banners

Product Specifications and Key Features

Quietflex® Brand Acoustic Baffles are an effective and economical solution for noise control problems, providing excellent sound absorption. These baffles absorb reflected noise off of ceilings, walls and floors. Typically suspended from the ceiling, they can also be used on walls.

Quietflex® Brand Acoustic Banners also provide excellent sound absorption. These banners offer an effective and economical solution for applications requiring significant amounts of sound absorption.

Features

- **Great Sound Absorption**
- **Economical**
- **Lightweight**
- **Class A Flammability Rating per ASTM E 84**
- **Size can be Custom Made to Specifications**

Product Specifications

- 2.0lb/ft³ fiberglass core, Nominal Thickness: 2".
- Heat sealed, acoustically transparent, flame retardant polyethylene bag.
- Standard Colors: White, Black, Gray.
- Custom colors available upon request.

Reverberation Time Reductions (Seconds)

	FREQUENCIES (Hz)						
	125	250	500	1000	2000	4000	5000
Reverberation Time Reduction Type A (seconds)	0.6	1.6	2.9	1.9	1.0	0.4	0.2
Reverberation Time Reduction Type H (seconds)	0.4	1.1	2.1	1.9	1.1	0.4	0.2

Sizes

BAFFLES	BANNERS
Standard Size: 2'x4' (Custom lengths available up to 40')	Standard Size: 4'x10' (Custom lengths available up to 40')
Comes with 2 aluminum grommets on the 4' side	Grommet quantity and locations must be specified based on size and application

Sound Absorption
Sabins/Baffle
(ASTM C 423–02a, Type A and H Mounting)

	1/3 OCTAVE BAND CENTER FREQUENCIES (Hz)						
	125	250	500	1000	2000	4000	5000
Type A Mounting	4.8	5.6	8.9	7.8	5.8	4.4	4.6
Type H Mounting	6.2	6.9	11.2	15.5	11.8	9.9	9.1

Sound Absorption
NRC Values, Absorption Coefficients (Sabins/ft²)
(ASTM C 423–02a, Type A and H Mounting)

	1/3 OCTAVE BAND CENTER FREQUENCIES (Hz)						
	125	250	500	1000	2000	4000	NRC
Type A Mounting	0.60	0.70	1.11	0.98	0.72	0.55	0.90
Type H Mounting	0.39	0.43	0.70	0.97	0.74	0.62	0.70

WARNING!!!

Textile glass fibers are used to manufacture this fiberglass insulation product. Handling, installing, or removing the product may result in some fiberglass contact. Users of this product are therefore advised to wear appropriate personal protective equipment so as not to experience skin, eye, or respiratory irritation. Gloves and eye protection, long sleeved, loose fitting clothing are recommended when installing or otherwise handling the product. Avoid breathing fiberglass dust and avoid contact with skin or eyes. A NIOSH approved (N95 or higher) disposable or reusable dust respirator properly fitted is recommended whenever the product is handled. Respiratory protection is mandatory when the dust levels in the workplace exceed OSHA permissible exposure limits or if worker irritation occurs. Work clothes should be washed separately and the washer rinsed after use.

FIRST AID MEASURES

If dust gets into eyes flush eyes with water to remove the fiber dust. If symptoms persist seek medical attention. Fibers can be removed by washing the skin with soap and warm water after handling this product. Further product safety information is available from your employer. The Material Safety Data Sheet is available from your distributor, directly from Quietflex or on the Quietflex website www.quietflex.com

The physical and chemical properties of Quietflex Semi-Cured Blanket represent typical, average values obtained in accordance with accepted test methods and are subject to normal manufacturing variations. The data is supplied as a technical service and is subject to change without notice. Check with Quietflex Manufacturing Company, L.P. to obtain current information.

Proud Member Of HARDI

QUALITY MANAGEMENT SYSTEM
CERTIFIED BY DNV
ISO 9001:2000
Houston Facility

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