

VERSATILE BLANKET HIGH TEMP OEM FIBERGLASS PRODUCT



Product Specifications and Key Features

Quietflex Versatile Blanket High Temp is produced using continuous textiletype glass fibers that have been bonded with a thermal setting phenolic resin. The glass fibers and resin are combined in an air lay system that produces a random fiber orientation for exceptional strength and resiliency. This product can be customized to meet specific customer needs.

www.quietflex.com

APPLICATIONS

Quietflex Versatile Blanket High Temp is designed for railcar, tanks, boilers and other heated equipment operating at temperatures up to $900^{\circ}F$ ($482^{\circ}C$).

ADVANTAGES

- Increased tensile strength
- Excellent resiliency and compression characteristics
- · High thermal efficiency
- · Fibers do not support bacterial or fungal growth
- Compression packed to save storage space and freight costs
- Quietflex Versatile Blanket High Temp is manufactured in a full range of thicknesses

SIZE

WIDTH	LENGTH	THICKNESS
Minimum: 6" Maximum: 120"	Length will be based on density and width to keep roll weights under 130 lbs.	Between ½" and 6"

SPECIFICATIONS FOR USE

- 1 Versatile Blanket High Temp may be used up to 900°F (482°C) with a maximum thickness of 6" (152 mm) and 650°F (343°C) with a maximum thickness of 8" (203 mm). Double-layer construction with staggered joints is recommended when equipment expansion is such that gaps begin to open between insulation sections (usually 400-600°F or 204-316°C).
- 2 During initial heat-up to operating temperatures above 400°F (204°C), an acrid odor and some smoke may be given off as the organic binders begin to decompose. When this occurs, caution should be exercised to ventilate the area well.
- 3 Installations surpassing 650°F (343°C) should be allowed to stabilize for at least two hours prior to heating up to 900°F (482°C). After the initial heat-up this step is not required.

THICKNESS AND DENSITY

THICKNESS	MIN DENSITY	MAX DENSITY
in	lb/ft³	lb/ft³
0.5	1.50	3.00
1.0	1.00	4.00
1.5	0.75	4.00
2.0	0.75	3.00
2.5	0.75	2.40
3.0	0.75	2.00
3.5	0.75	1.70
4.0	0.75	1.50
5.0	0.75	1.20
6.0	0.75	1.00



VERSATILE BLANKET HIGH TEMP

OEM FIBERGLASS PRODUCT

PHYSICAL PROPERTIES

TEST METHOD OR PROPERTY	RESULTS		
ASTM C411 Hot Surface performance test	Passes up to 900°F (482°C); unfaced only		
ASTM C553 Type 1, 2 and 3	Meets all requirements at varying densities		
ASTM E162	Pass for the surface flammability of materials when exposed to a prescribed level of radiant heat energy		
ASTM E662	Pass for specific optical density of smoke generated by solid materials		
Boeing BSS 7239	Test method for toxic gas generation by materials on combustion		
NFPA 259, 90A and 90B limited combustibility	Less than 3,500 BTU/lb.		
ASTM E1354	Heat and visible smoke release rates for materials and products using oxygen consumption calorimeter		
ASTM C665: corrosion resistance	Pass with aluminum, steel and copper		
ASTM C1104: water vapor sorption	Less than 1.0% by weight.		
ASTM E84: flame spread index	Less than 25		
ASTM E84: smoke developed index	Less than 50		
ASTM G21, 22 C1338 microbial fungal growth	Does not support the growth of mold, fungi and bacteria		
Tensile strength	≥1 PSI (6.6 kPa)		
Density tolerance	+/-15%		
Width tolerance	+/-0.25 in or -0 in+/-0.50 in		
Length tolerance	+2% or +2 ft /0 ft		
Thickness tolerance	+/- 0.25 in or -0 in/+0.50 in		
Optional facings available	Laminated FSK and Black Mat Facing		

 $^{^{*}}$ Conductivity values at select temperatures (ASTM C518) - Graph 100% Starch + Higher Resin

THERMAL VALUES @ 75°F mean temperature (ASTM C 518)

DENSITY	THICKNESS	K-VALUE*	C-VALUE	R-VALUE
lb/ft³	in	BTU-in/ h-ft²-°F	BTU/ h-ft²-°F	h-ft²-°F/ BTU
0.75	1.0	0.365	0.37	2.7
	1.5		0.24	4.1
	2.0		0.18	5.5
1.00	1.0	0.325	0.33	3.1
	1.5		0.22	4.6
	2.0		0.16	6.1
1.50	0.5	0.284	0.57	1.8
	1.0		0.28	3.5
	1.5		0.19	5.3
	2.0		0.14	7.0
2.00	0.5	0.263	0.53	1.9
	1.0		0.26	3.8
	1.5		0.18	5.7
	2.0		0.13	7.6
3.00	0.5	0.240	0.48	2.1
	1.0		0.24	4.2
	1.5		0.16	6.3

^{*}K-Value: Nominal thermal conductivity is shown. Value tolerance is + or - $10\,\%$



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WARNING

Textile glass fibers are used to manufacture the 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 equipments as a 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 (NBS or higher disposable or reusable dust respirator properly fitted is recommended whenever the product is handled. Respiratory protection is mandatory when the dust level 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 MEASURE

If dust gets in 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 at www.quietflex.com.

The physical and chemical properties of the QuietFlex Faced Versatlie 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 Manfacturing Company LP to Oatina current information.