

# AW Wool

Thermal insulation made of bio soluble and elastic glass fibers, bonded with a thermo setting resin, shipped in roll form. This product is generally used for stoves, ovens and home heaters.



## END USE CHARACTERISTICS AND LIMITATIONS

This product is designed to be used in applications as a thermal insulation of equipments with service temperatures up to 540°C (1000°F) with the recommended thickness.

This insulation is widely used in systems of panels, flexible coverings, industrial heaters or irregular surfaces. **ASTM C553** Standard Specification for Mineral Fiber Blanket Thermal Insulation for Commercial and Industrial Applications Type V.

Some odor may be detected when the first heating begins, however this odor disappears quickly when it reaches the maximum operating temperature.

Avoid damaging the package during transport or storage, in this way is recommended to avoid placing excessive weight over the product and unpack only when installing. Surface Burning Characteristics of Insulation have been classified as Class 1, FS/SD 25/50, File R25157. (**UL723**, Surface Burning Characteristics of Building Materials and CAN/ULC-S102-M /**ASTM E84**, Surface Burning Characteristics Test). (FS, Flame Spread – SD, Smoke Developed).

Product certified by LAPEM (Testing Laboratory Equipment and Materials, Mexico)

## PRODUCT SPECIFICATION

PRODUCT	LENGTH (mm)	WIDE mm	THICKNESS (1) mm	NET WEIGHT ± 10% kg/m2 (g/ft2)
600" x 48" x 1"	15240 ± 30mm	1219 ± 13 mm	25.4 ± 5 mm	0.44 (40.76)
600" x 48" x 1. ½"	15240 ± 30mm	1219 ± 13 mm	38.1 ± 5 mm	0.64 (59.47)
600" x 15. 3/4" x 1. 1/4 "	15240 ± 30mm	400 ± 13 mm	31.75 ± 5 mm	0.55 (51.11)
600" x 48" x 2"	15240 ± 30mm	1219 ± 13 mm	50.8 ± 5 mm	0.90 (83.64)

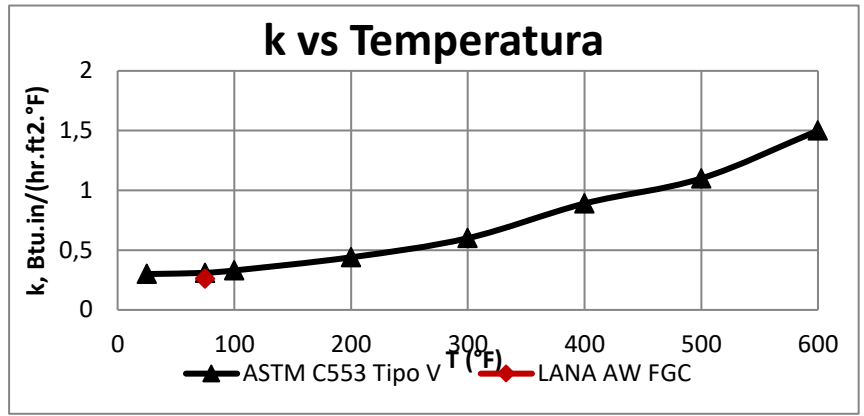
(1) Minimum thickness 100% six weeks after being produced

PROPERTIES	STANDARD	DESCRIPTION
Operating Limits	ASTM C447	Max. Temperature 538°C (100°F)
Thermal Performance (Thermal Conductivity)	ASTM C518	Typical Value 0.26 BTU.in/hr.ft².°F at 75°F Mean Temp. (0.0375 W/m.°C at 24°C Mean Temp.)
Water vapor Sorption	ASTM C1104/ C1104M	<5% weight-120°F (49°C), 95% R.H.
Surface Burning Characteristics	E84 / UL723	Flame Spread Index < 25 Smoke Developed Index < 50
Corrosiveness	ASTM C665 / ASTM 795	Meets requirements
Flexibility	ASTM C1101/c1101M	Classified as Flexible resilient
Fungi Resistance	ASTM C1338	Meets requirements
Odor Emission	ASTM 1304	
<b>DBE Content</b>	<b>Oregon State</b>	<b>FREE, Meets requirements</b>

Data presented below are a guide for the thermal performance based on qualification requirements on ASTM C553 Type V compared with a reference point of the product (TWL)

ASTM C553 Type V			
TEMPERATURE		THERMAL CONDUCTIVITY	
°F	°C	BTU.in/hr.ft².°F	W/m.°C
25	-3.9	0.30	0.043
75	23.9	0.31	0.045
100	37.8	0.33	0.048
200	93.3	0.44	0.063
300	148.9	0.60	0.087
400	204.4	0.89	0.128
500	260.0	1.10	0.159
600	315.6	1.50	0.216

LANA AW FGC			
TEMPERATURE		THERMAL CONDUCTIVITY	
°F	°C	BTU.in/hr.ft <sup>2</sup> .°F	W/m.°C
75	23.9	0.26	0.0375



Thickness Insulation (in)		Service Temperature (°F)				
		200	400	600	800	1000
1	ST (°F)	97.7	147.0	218.3	309.8	414.8
	HL (Btu/hr/ft <sup>2</sup> )	39.06	146.10	344.80	675.80	1178.00
	EFF (%)	78.01	76.32	72.49	68.76	65.87
1,5	ST (°F)	91.4	128.1	183.1	256.4	344.0
	HL (Btu/hr/ft <sup>2</sup> )	27.43	102.10	240.50	471.80	824.10
	EFF (%)	84.56	83.45	80.81	78.19	76.12
2	ST (°F)	87.8	117.3	162.3	223.8	299.3
	HL (Btu/hr/ft <sup>2</sup> )	21.15	78.51	184.70	362.30	633.30
	EFF (%)	88.09	87.28	85.27	83.25	81.65

ST=Surface Temperature; HL=Heat Losses per hour; EFF=Insulation efficiency  
 3EPlus V4.1 Software (NAIMA) - Calculations of this computer program are based on tested conductivity values and conditions of Horizontal heat flow, Tank Shell-Horizontal, base metal stainless steel, 75°F ambient temperature and wind speed 5 mph, ASJ jacket, as per ASTM C680. Meets ASTM C585 Flexible and ASTM C553 Type V.

**VISUAL STANDARD**

CHARACTERISTICS	ACCEPTANCE GUIDE
Color	The product is yellow. Slight variations are accepted, and these variations do not affect the performance of the insulation.
Surface Appearance	Surface must be uniform, free of binder patches. Occasionally may present white patches. The agglomeration of the ground material in certain zones as edges or between two rolls bisected generally is not acceptable; however an occasional patch within a roll does not deteriorate its thermal performance, unless it produces delamination of the product.  The product presents homogeneous Surface without tearing on the fiberglass. (However, cuts or parts which are obtained from the material are usable as insulation).
Thickness	This is a product that can be observed with a lesser thickness at the unpacking moment, but due to its resiliency, with the time it recovers the required thickness.

**PACKAGING**

PRODUCT	UNITS/PACKAGE	AREA/PACKAGE (m <sup>2</sup> )	NET WEIGHT /PACKAGE kg (+/-10%)
600" x 48" x 1"	1	18.58	8.17
600" x 48" x 1. 1/2"	1	18.58	12.03
600" x 15. 3/4" x 1. 1/4 "	3	18.28	10.05
600" x 48" x 2"	1	18.58	16.04

**RECYCLED CONTENT**

- (1) PI Post Industrial Recycled Content: Collected from Manufacturers or industry.
- (2) PC Recycled Content Post-Consumer: Collected from end uses.

TOTAL RECYCLED CONTENT	POST-INDUSTRIAL RECYCLED CONTENT PI (1)	POST-CONSUMER RECYCLED CONTENT PC (2)
78.8%	78.8%	0 %

GROSS WEIGHT= NET WEIGHT (±10%) + 0.8 kg aprox. Polyethylene shrink, auto-adhesive label (Extremes Open).

**INSTALLATION RECOMMENDATIONS**

**Before Installation**

All surfaces must be clean, completely dry and covered with anticorrosive painting or any other protective coating according with the operating temperature. For this purpose, is necessary to employ the appropriate chemical cleaning or mechanical cleaning methods.

**During Installation**

- Install metallic rings on the tank Wall that will support the insulation. There are cases where there are supports installed on the equipment, and those elements can have the same function.
- The rings or supports are conformed with plates which have an equal wide to the insulation thickness. These plates are in contact with the tank wall by short stretches of the same plate, welded to the wall of the equipment.

- The rings or supports must be placed with a distance each other, according to the Thickness Insulation.
- Once the Insulation is supported over the rings, must be secured to the tank wall with metal strips of 1" wide.
- Once installed the insulation, proceed to place the galvanized wire mesh by "sewing" joining the edges of the wire mesh with staples or nails on the outer surface of the insulation.
- You must leave a minimum overlap of 2 ", both longitudinal joints and transverse.

**After Installation**

- The Insulations should remain always protected of rain and sun.
- In case there exist manholes, supports, pipe endings or measuring equipments, joints with those parts must be sealed with a masticue.

	<p><b>Fiberglass Colombia S.A - Colombia</b>  <b>Planta Mosquera</b>  <b>Mineral Glass Wool AA1</b></p>
	<p>Certificate No.385 Bio soluble Mineral glass wool FGC.                  Note Q of the Regulation EC 1272/2008 of the European Parliament and of the Council as Currently in force.</p>
	<p>European Certification Board for Mineral Wool Products</p>

<p><b>CFE</b> <i>Una empresa de clase mundial</i>  <b>LAPEM</b>                  LABORATORIO DE PRUEBAS DE EQUIPOS Y MATERIALES</p>
<p><b>FIBERGLASS COLOMBIA S.A PROVEEDOR AUTORIZADO</b></p>

<p><b>N° CO11/4442</b></p> <p>Sistema de Gestión de la Calidad para la producción y venta de membranas impermeabilizantes modificadas (mantos, con o sin recubrimiento autoprotector) y emulsiones asfálticas, Cielo rasos en fibra de vidrio con acabado decorativo. Láminas y rollos flexibles en fibra de vidrio para la fabricación y recubrimiento interno y externo de conductos para transporte de aire acondicionado. Aislamientos térmicos y acústicos rígidos, flexibles y preformados.</p>	 <p><b>Norma - ISO 9001:2015</b>                  Producto fabricado bajo un sistema de administración de calidad certificado de conformidad con ISO 9001.</p>	<p>Reported values are typical of tests carried out on samples taken from standard production and may be update without notice.</p> <p>The user is responsible for determining if the product is recommended for a particular surface and if it satisfies the application requirements. The user must make application testing and product testing required for that purpose.</p> <p><i>Not controlled copy. Information on this document may be updated without notice.</i></p>
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**Last Update: August 28th / 2018**