ZERO DUCTWRAP

The product is a mottled light yellow, uniformly textured thermal and acoustical insulation blanket. It consists of bio soluble glass mineral fibers bonded with a thermosetting resin. The outside surface of the rolls is faced with a foil reinforced kraft vapor barrier. It is intended for use as external covering for metallic duct in conditioning air systems.



END USE CHARACTERISTICS AND LIMITATIONS

The product is designed for wrapping round and circular residential and commercial ducts. The facing employed is suitable for air-conditioning ducts which require an efficient vapor barrier. The product is designed to provide ease of installation and retention of performance properties. **ASTM C1290** Standard Specification for Flexible Fibrous Glass Blanket Insulation Used to Externally Insulate HVAC Ducts; Type III.

The insulation may be applied to the exterior of air ducts operating at temperatures from 5°C (40°F) to 121°C (250°F) facing to the outside. The insulation may be held in place by mechanical devices or suitable suspension system and punctures through the facing should be sealed to prevent loss of vapor barrier. The product may be used in normal conditions of humidity and temperature.

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

PRODUCT SPECIFICATION

| PRODUCT | LENGTH (mm) | WIDE mm | THICKNESS (3)(4) mm | NET WEIGHT ± 10% kg/m2 (g/ff2) | THERMAL RESISTANCE (5) (hr.ft².°F /BTU) Espesor nominal / Instalado (5) | THERMAL RESISTANCE (5) R-100 (m².C/W) Espesor nominal / Instalado (5) | THERMAL CONDUCTIVITY BTU.in/hr.ft².°F (W/m.°C) |
|--|----------------|---------------|---------------------------|---|---|---|---|
| ZERO – 75 Duct Wrap (1) 600" x 48" x 1. ½ | 15.24 +20mm | 1219 +13mm | 38 ± 3 mm | 0.63 (58.5) | 5.2 / 4.2 | 91.7 / 70 | 0.28 (0.041) |
| ZERO – 75 Duct Wrap (1) 1200" x 48" x 1. ½ | 30.48 +20mm | 1219 +13mm | 38 ± 3 mm | 0.63 (58.5) | 5.2 / 4.2 | 100.51/79.37 | 0.28 (0.041) |
| ZERO – 75 Duct Wrap (1) 900" x 48" x2" | 22.86 +20mm | 1219 +13mm | 50 ± 3 mm | 0.66 (61.3) | 6.9 / 5.6 | 121.67 / 98.75 | 0.28 (0.041) |
| ZERO – 100 Duct Wrap (2) 1200" x 48" x 1. ½ | 30.48 +20mm | 1219 +13mm | 38 ± 3 mm | 0.71 (65.9) | 5.7 / 4.5 | 100.51 / 79.37 | 0.26 (0.037) |
| ZERO – 150 Duct Wrap (2) 1200" x 48" x 1 | 30.48 +20mm | 1219 +13mm | 25 ± 3 mm | 0.71 (75.9) | 4.1 / 3.2 | 72.73 / 56.43 | 0.24 (0.035) |

- (1) **ASTM C553**Type I
- (2) **ASTM C553** Type II
- (3) Minimum thickness 95% six weeks after being produced. (Base: method FGC)
- (4) The published installed R-value is based on installation of product over sealed sheet metal ductwork with average installed thickness no less than 80% of nominal thickness an thermal conductivity at nominal, so it will be get the labeled R-value with a correct installation
- (5) Consider R installed for the final performance. (Thermal transmittance U=1/R (BTU/hr.ft².°F W/m².°C))

| PROPERTIES | STANDARD | DESCRIPTION | |
|--|-----------------------|---|--|
| Water Vapor Sorption | ASTM C1104/ C1104M-00 | <5% weight-120°F (49°C), 95% R.H. | |
| Operating Limits | ASTM C411 | Temperatures from 40°F (5°C) to 250°F (121°C) | |
| Thermal performance (Thermal conductivity) | ASTM C518 | 0.035 – 0.041 W/m.°C (24°C Mean Temp.) Typical value (0.24 – 0.28) BTU.in/hr.ft².°F a 75°F Mean Temp. | |
| Thermal performance (Thermal resistance) | ASTM C177/ASTM C653 | | |
| Thickness and density | ASTM C167 | Meets requirements | |
| Vapor retarders Type II y Type IV | ASTM C1136 | | |
| Water vapor Permeance | ASTM E96 A Method | 0.02 perm (grains/hr.ft².in Hg) 1.15 ng / N.s maximum | |



| PROPERTIES | STANDARD | DESCRIPTION |
|---------------------------------|----------------------|---|
| Surface Burning Characteristics | E84 / UL723(*) | Flame Spread Index <25 Smoke Developed Index <50 |
| Corrosiveness | ASTM C665 / ASTM 795 | |
| Fungi Resistance | ASTM C1338 | Meets requirements |
| Odor Emission | ASTM 1304 | |
| DBE Content | Oregon State | FREE, Meets requirements |

(*) UL labeled on request, MTO

VISUAL STANDARD

| CHARACTERISTIC | ACCEPTANCE GUIDE | | |
|--------------------|---|--|--|
| Color | Product is yellow. Color can go from light yellow to dark yellow. Color variation does not affect acoustical and thermal product performance. | | |
| Surface Appearance | The surface should be uniform and free from binder spots and unbounded areas, but they could be accepted if they are not frequent. The facing vapor barrier, FRK, could show color variation as darken zones, which is a normal characteristic of the product. In normal handling and storage conditions, the facing will not show damage as delamination, ripping, or free threads. Facing will be uniformly adhered to the wool. The foil reinforced kraft vapor barrier form a 2in flange on one edge of the roll for best and ease installation. Slight condensation as frost may occur on the inside of the package. When the temperature raises, the moisture is absorbed by the air in the package and this condition has no detrimental effect on the product. | | |
| Thickness | Thickness of the roll could be seen minor than required when unwrapped, but because this is a resilient product thickness will get the nominal over the time. | | |
| Telescopy | The rolls can appear slightly cone-shaped due to winding system. This condition is controlled with 3"maximum. | | |
| Package | Packing is covering the roll surface but not the extremes in order the roll to be in contact with air. This condition makes that correctly handling and ware-housing must be provided. | | |

PACKAGING

| PRODUCT | AREA/PACKAGE (m²) | NET WEIGHT / PACKAGE kg (+/-10%) |
|---|-------------------|-------------------------------------|
| ZERO – 75 Duct Wrap 600" x 48" x 1. ½" | 18.58 | 11.90 |
| ZERO – 75 Duct Wrap 1200" x 48" x 1. ½" | 34.16 | 23.78 |
| ZERO – 75 Duct Wrap 900" x 48" x2" | 27.87 | 20.62 |
| ZERO – 100 Duct Wrap 1200" x 48" x 1. ½" | 37.16 | 27.50 |
| ZERO – 150 Duct Wrap 1200" x 48" x 1" | 37.16 | 27.50 |

GROSS WEIGHT= NET WEIGHT ($\pm 10\%$) + 0.3 kg approx. **1 ROLL/PACKAGE.** Packaging: Polyethylene shrink-package roll, extremes open and auto adhesive labels (UL label on request, MTO).

RECYCLED CONTENT

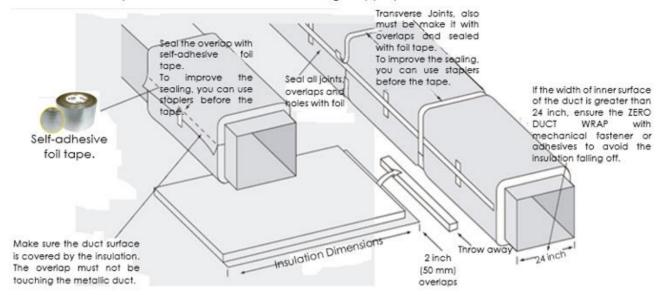
- (1) PI Recycled Content: Post Industrial Recycled Content: Collected from manufacturers or industry.
- (2) PC Recycled Content: Post-Consumer Recycled Content: Collected from end uses.

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



INSTALLATION RECOMMENDATIONS

Zero duct wrap installation recommendations to get appropriate thermal resistance values.



In order to obtain the better performance is indispensable ensure that installation is made professionally and following recommendations of Fiberglass Colombia S.A.

An essential requisite for duct system performance in galvanized sheet is to warrant that all joints are sealed to avoid leaks, this represent one of the greater troubles to operate a system efficiently. The owner or operator must demand tightness of the ducts to avoid high operation costs.



Fiberglass Colombia S.A - Colombia Planta Mosquera Mineral Glass Wool AA1

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.

European Certification Board for Mineral Wool Products



LABORATORIO DE PRUEBAS DE EQUIPOS Y MATERIALES

FIBERGLASS COLOMBIA S.A PROVEEDOR AUTORIZADO

N° CO11/4442

Sistema de Gestión de la Calidad para la producción y venta de membranas impermeabilizantes modificadas (mantos, con o sin recubrimiento autoprotector) y emulsiones asfalticas, 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.



Norma - ISO 9001:2015

Producto fabricado bajo un sistema de administración de calidad certificado de conformidad con ISO 9001. Reported values are typical of tests carried out on samples taken from standard production and may be update without notice.

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.

Not controlled copy. Information on this document may be updated without notice.

Last Update: August 28th / 2018

