

FLEXIVER

Flexible duct insulated with bio soluble fiberglass to transport air conditioning and ventilation systems in commercial and residential applications of medium pressure. It comprises a coiled steel wire resistant to tension and oxidation, laminated with polyester and coated with a layer of glass fiber insulation. The product is totally covered by a vapor barrier, polyester metalized film reinforced directionally (MPF).



END USE CHARACTERISTICS AND LIMITATIONS

This product is ideal for derivations, secondary and ramifications to provide air conditioning and ventilation in housing projects, warehouses, plants, offices, malls, restaurants, hotels. It can be used as a complement to air duct or with diffuser connectors, entrance rooms and other terminal devices. **ASTM C553** Standard Specification for Mineral Fiber Blanket Thermal Insulation for Commercial and Industrial Applications, Type I.

The product is designed for air conditioning ducts fabrication (heating and ventilation), in residential and commercial air systems.

The flexible duct FLEXIVER is designed for air speed up to 30.5 m/s (5000 fpm) and static pressure up to 2500 Pa (10 in WG) (positive), without producing erosion, deformation or delamination. Maximum air temperature within the duct is 121°C (250°F).

Perforations or any other deterioration on the vapor barrier reduce the thermal and mechanical performance of the air conditioning system, therefore it must be repaired with auto adhesive tape for ductwork. The core is airtight and insulation does not absorb moisture, however all ducts, grilles and diffusers should be properly sealed to prevent the ingress of moisture into the system.

The air must be free of solids which could cause erosion on duct walls; for this reason, dust filters must be installed in the air suction nozzle of the system and the cuttings should be made on flat, smooth surfaces with fine edge knives, in an isolated and ventilated area.

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

PRODUCT SPECIFICATION

PRODUCT	LENGTH m (in)	INNER DIAMETER mm (in)	THICKNESS (1) mm (in)	WEIGHT +/- 10% kg/m ² (g/ft ²)	STATIC PRESSURE (máx.)
FLEXIVER 6" DIAMETER	7.62 (300) ± 1%	152 (6) ± 5%	30 (1.18) ± 3mm	0.34 (34.2)	10 in WG positive 1 in WG negative
FLEXIVER 8" DIAMETER		203 (8) ± 5%			
FLEXIVER 10" DIAMETER		254 (10) ± 5%			
FLEXIVER 12" DIAMETER		305 (12) ± 5%			
FLEXIVER 14" DIAMETER		356 (14) ± 5%			10 in WG positive 1/2 in WG negative

(1) Minimum Thickness 95% six weeks after being produced.

Vapor barrier (FRK: Foil reinforcement Kraft): 0,1 maximum in two layers, one surface is metallized with polyester with adhesive flame

PROPERTIES	STANDARD	DESCRIPTION
Corrosiveness	ASTM C665/ASTM C795	Meets requirements
Water Vapor Sorption	ASTM C1104/C1104M	<5% by weight at 120°F (49°C), 95% R.H.
Fungi resistance	ASTM C1338	Meets requirements
Erosion Resistance (Operating Limits)	ASTM C411	Max. Air speed 30.5 m/s Air Temperature up to 121°C (250°F).
Odor Emission	ASTM C1304	Meets requirements
Surface Burning Characteristics	ASTM E84	Flame Spread Index <25 Smoke Developed Index <50
Thermal performance (Thermal resistance)	ASTM C653	Typical Value R-4.2 hr.ft ² .°F /BTU at 75°F Mean Temp. (R100=73.74 m ² .°C / W at 24°C Mean. Temp)
Combustion Characteristics	NFPA 259	Meets requirements
DBE Content	Oregon State	Meets requirements

VISUAL STANDARD

CHARACTERISTICS	ACCEPTANCE GUIDE
Inner and Outer Metallized Surface	The metallic exterior finish should be clean and without holes. Airbags are not allowed and the surface must not have evidence of delamination. The spiral core must be complete, with no evidence of holes or disassembly. The extremes of the duct are open; with excess foil to be installed in order to prevent exposing of fiberglass insulation.
Fiberglass Insulation Surface	Occasionally the product may present white patches and or damp patches that do not reduce the performance of the insulation. The sheet should be left easily cut with reasonable edge tools, the cut should be clean and uniform surface.

PACKAGING

PRODUCT	PACKAGE	NET WEIGHT kg/Package ±10%
FLEXIVER 6" DIAMETER	Polyethylene bag + Plastic Bands	2.9
FLEXIVER 8" DIAMETER		3.2
FLEXIVER 10" DIAMETER		4.0
FLEXIVER 12" DIAMETER		5.5
FLEXIVER 14" DIAMETER		6.5

GROSS WEIGHT = NET WEIGHT (±10%) + 0.3 kg approx.
1 Unit/Package

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 PI RECYCLED CONTENT (1)	POST-CONSUMER PC RECYCLED CONTENT (2)
50%	50%	0%

INSTALLATION RECOMMENDATIONS

General Recommendations

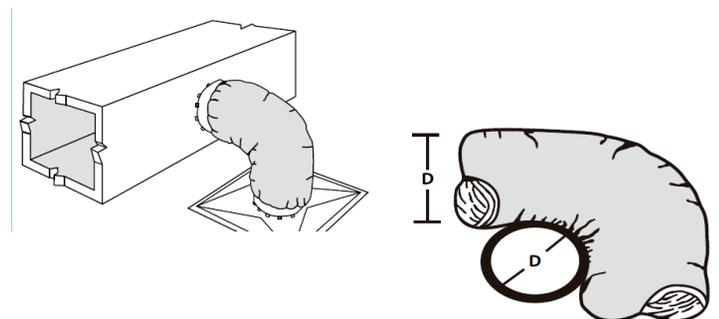
- Take special care with elbows curvature generated by the weight of the product and the address changes that provides serious consequences on the system performance due to heat losses.
- Use an appropriate length of Flexiver and try to avoid exposure the product to direct sunlight because is possible a damage of material.

During the Installation

- Is important install the duct extended and avoids compressing it, because can decrease the performance and increase the losses.
- Curvature ratio should be greater or equal to diameter of the conduction to reduce friction losses.
- Avoid contact with metal elements, water pipes, gutters or surfaces whose temperature exceeds the limit of 40 °C.

Support

- The support should be located at distances no greater than 1,2 meters, it must ensure that the curvature of the duct is less than 40 mm per meter.
- The supports as rings or bands must be sufficient width (minimum width of 40 mm) to prevent any air flow restriction.





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

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LAPEM

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 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.

**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.

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