ACOUSTIC CONTROL HD, ACOUSTIC BLOCK HD Y PHONOFLOOR HD

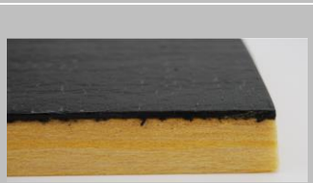
Thermal and acoustic insulations made of bio soluble glass fibers, uniform texture presented in boards of high density, with or without acoustical membrane. They are recommended for functions of noise absorption solutions or transmission noise control, according to each assembly.

USE CHARACTERISTICS AND LIMITATIONS

The specialized acoustical products have been designed such as noise control system of airborne noise and vibrations, they can be installed as acoustic panels and /or vertical and horizontal partitions in machines rooms, blowers, technical rooms, recording booth, shopping malls, sport facilities, hanging baffles, theaters, auditoriums and others.

Effective acoustic treatments to control impact noise consist in insulation noise to disconnect the noise source (finishing on the floor) of propagation medium (structure of building) in order to protect the receptor area. The performance improves when the acoustic insulation has properties of deadening and resilience, type mineral fiber glass.

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

PRODUCT		DESCRIPTION	APPLICATION
	**ACOUSTIC CONTROL VP HD**	Insulation layer in rigid fiber glass and two layers of acoustic membrane of 3 mm thick (one per each side).	Airborne noise control and impact noise control. Also, it is used such as industrial application in machinery. Control of low frequencies and vibration; absorption of high frequencies.
	**ACOUSTIC CONTROL FB HD**	Insulation rigid layer of fiber glass and one layer of acoustic membrane of 3 mm thick.	Airborne noise control and impact noise control. Mixed application, residential and industrial. Control of low frequencies; absorption of medium and high frequencies.
	**PHONOFLOOR HD**	Acoustic insulation in rigid sheet high density.	Residential application to control of impact noise
	**ACOUSTIC BLOCK 1 HD**	Insulation semi-rigid fiber glass and two layers of acoustic membrane of 3 mm thick (one per each side).	Noise control between walls of adjacent places that requires silence and privacy. Control of low and medium frequencies; absorption of high frequencies.
	**ACOUSTIC BLOCK 2 HD**	Insulation with two layers of fiber glass and one layer of acoustic membrane in the middle.	Insulation and acoustical conditioning in walls and ceilings. Absorption of medium and high frequencies; control of low frequencies.

The impact noise is generated as a result of knocks on walls or other solid elements of a building.

PRODUCT REQUIREMENTS

PRODUCT NAME (1)	LENGHT (mm/inch)	WIDE (mm/inch)	THICKNESS(2) (mm/Inch)	WEIGHT (kg/m2)
ACOUSTIC BLOCK 1	1220 (48) +5 mm	1000 (39) + 3mm	31 (1.2) ± 1 mm	11.6 ± 10%
ACOUSTIC BLOCK 2	1220 (48) +5 mm	1000 (39) + 3mm	52 (2) ± 3 mm	9.42 ± 10%
ACOUSTIC CONTROL FB HD	1220 (48) +5 mm	1000 (39) + 3mm	28 (1.1) ± 1 mm	6.96 ± 10%
ACOUSTIC CONTROL VP HD	1220 (48) +5 mm	1000 (39) + 3mm	31 (1.2) ± 1 mm	11.6 ± 10%
PHONOFLOOR HD	2438 (96) +5 mm	1219 (48) + 3mm	25 (1) ± 1 mm	2.32 ± 10%
PHONOFLOOR HD	2438 (96) +5 mm	1219 (48) + 3mm	19 (¾) ± 1 mm	1.74 ± 10%

(1) Squareness: Angles at 90°, maximum 3 mm deviation.
(2) Individual board thickness calculated from the stack height measurement.
(3) For any appliance, during the design of the system, the dimensional tolerances must be considered.

PROPERTIES	STANDARD	*PHONOFLOOR HD*	ACOUSTIC CONTROL HD	ACOUSTIC BLOCK
Thermal performance (Thermal Conductivity Mean Temp.)	ASTM C518	0.27 BTU.in/hr.ft^2.°F a 75°F (0.039 W/m.°C a 24°C)	0.24 BTU.in/hr.ft^2.°F a 75°F (0.035 W/m.°C a 24°C) (Mineral Glass Wool)	0.24 BTU.in/hr.ft^2.°F a 75°F (0.035 W/m.°C a 24°C) (Mineral Glass Wool)
Acoustic performance (1)	ASTM C423 Montaje A	NRC: 0.70 (1 in of tickness)	NRC: 0.99 (1 in of tickness) *(2)* (Mineral Glass Wool)	NRC: 0.70 (1 in of tickness) *(2)* (Mineral Glass Wool)
Acoustic performance. Loss of noise transmission	ASTM C423 Montaje A	-17 dBA-17 dBA (63Hz a 4000Hz) (3)	AC VP: -17 dBA AC FB: -15 dBA (63 Hz a 4000Hz) (4)	AB1: -17 dBA AB2: -15dBA (63Hz a 4000Hz) (4)
Water vapor Sorption	ASTM C1104/ C 1104M	<3% weight 120°F (49°C), 95% R.H.	<3% weight 120°F (49°C), 95% R.H.	<3% weight 120°F (49°C), 95% R.H.
Compressive Strength	ASTM C165	432 lbf/ft^2 (25% def.) (20684 Pa)	430 lbf/ft^2 (10% def.) (20588 Pa) (5)	390 lbf/ft^2 (10% def.) (18673 Pa) (5)
Surface Burning Characteristics	ASTM E84	Flame spread index< 25 Smoke Developed Index < 50	Not Available	Not Available
Corrosiveness	ASTM C665 / ASTM C795	Meets requirements (Mineral glass wool)	Meets requirements (Mineral glass wool)	Meets requirements (Mineral glass wool)
Rigidity	C1101 /C1101M	Classified as Rigid	Classified as Rigid	Classified as Rigid
Fungi Resistance	ASTM C1338	Meets requirements	Meets requirements	Meets requirements
Odor Emission	ASTM C1304	Meets requirements	Meets requirements	Meets requirements
DBE Content	Oregon State	Meets requirements	Meets requirements	Meets requirements

(1) NRC: Noise reduction coefficient. Expected values based on similar designed products and limited number of samples. The NRC values should be used as a quick screening tool to compare different construction assemblies. ASTM C423 Standard Test Method for Sound Absorption Coefficients by the Reverberation (A Mounting): Material placed against a solid backing such as a block wall
(2) To specific assemblies is necessary calculating the efficiency of a partition (Field Impact Insolation Class (F.I.I.C)) to act such as noise attenuation system impact according to Standard ASTM E1007.
(3) Improvement index of 17.6 dB versus to the reference sample (concrete plate with 15 cm of thickness). Maximum 37 dB in the 4000Hz band and minimum 1.8dB in the 125Hz band (Floor system composed of: concrete plate with15 cm of thickness + Phonofloor ¾" + fibrecement of 20 mm)
(4) Loss of noise transmission in the frequency range,calculated by mass law for the individual product.
(5) Typical value, results of measurements at 10% of deformation of 12 samples per sheets of each reference (Acoustic Control VP HD & Acoustic Block 2 HD)

VISUAL STANDARD

CHARACTERISTIC	ACCEPTANCE GUIDE
Color	The fiber glass is yellow. Color can go from light yellow to dark yellow. The membrane is black like asphalt. Color variation does not affect acoustical and thermal product performance.
Surface Appearance	Wet patches or hard patches (Bakelite), blown wool or pieces of glass are not allowed. Also, binder marks or wrinkles, bumps or cracks that exceed 3 mm (1/8 in) in height or depth, are not allowed. The appearance of asphalt membrane should be smooth and it should not have cracks.

RECYCLED CONTENT

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

PRODUCT	TOTAL RECYCLED CONTENT	POST INDUSTRIAL RECYCLED CONTENT (1)	POST CONSUMER RECYCLED CONTENT (2)
ACOUSTIC CONTROL VP HD	4.73%	4.73%	0%
ACOUSTIC CONTROL FB HD	15.24%	15.24%	0%
ACOUSTIC BLOCK 1	7.10%	7.10%	0%
ACOUSTIC BLOCK 2	30.15%	30.15%	0%
PHONOFLOOR HD	67.79%	67.79%	0%

PACKAGING

PRODUCT	UNITS / PACKAGE	AREA/ PACKAGE (m^2)	NET WEIGHT +/-10% kg/Package
ACOUSTIC BLOCK 1	4	4.88	56.60
ACOUSTIC BLOCK 2	2	2.44	22.98
ACOUSTIC CONTROL FB HD	2	2.44	16.98
ACOUSTIC CONTROL VP HD	4	4.88	56.60
PHONOFLOOR HD 1"	6	17.83	41.37
PHONOFLOOR HD ¾"	8	23.77	41.36

GROSS WEIGHT (kg/package) =
NET WEIGHT (kg/package) + 0.8 kg aprox.
Polyethylene shrink-package extremes open, cardboard corner protector and autoadhesive label.

EUCEB

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 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.

SYSTEM CERTIFICATION ISO 9001 SGS

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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FIBERGLASS ISOVER SAINT-GOBAIN