Declaration of Performance





DoP Number: GR-2109-003

1 Unique identification code of the product-type:

MW-EN 13162-T7-CS(10)60-TR20-PL(5)600-WS-WL(P)-SD25-CP2

 $2\ \ Identification\ of\ the\ construction\ product\ as\ required\ under\ Article\ 11(4)\ of\ the\ regulation\ n^\circ\ 305/2011/EU:$

FIBRANgeo BP-HD-AX Thermal Insulation of Building (ThIB)

3 Intended use or uses of the construction product, in accordance with the applicable harmonised technical specification, as foreseen by the

 $4\ Name, registered\ trade\ name\ or\ registered\ trade\ mark\ and\ contact\ address\ of\ the\ manufacturer\ as\ required\ under\ Article\ 11(5)\ of\ the\ regulation\ n^{\circ}$ 305/2011/EU:

FIBRAN S.A. 56410, Thessaloniki, Greece

5 Name and contact address of the authorised representative whose mandate covers the tasks specified in Article 12(2) of the regulation n° 305/2011/EU:

AVCP - System 1 - System 3

Not applicable

 $6\ \ System\ or\ systems\ of\ assessment\ and\ verification\ of\ constancy\ of\ performance\ of\ the\ construction\ product\ as\ set\ out\ in\ Annex\ V\ of\ the\ Regulation\ n^\circ$ 305/2011/EU:

0751-CPR-223.0-01

7 Notified Certification bodies FIW (Forschunginstitut für Wärmeschutz e.v München) N° 0751 and MPA (Materialprüfanstalt fün das Bauwesen $Hannover) \ N^{\circ} \ 0764 \ performed, carried out the determination of the product type, the initial inspection of the manufacturing plant and of factory type and the product type in t$ production control and the continuous surveillance, assessment and evaluation of factory production control and issued the certificate of constancy of performance for reaction to fire.

8 Declared performance according to harmonized standard:

EN 13162:2012+A1:2015

Reaction to fire Realease of dangerous substances Realease of dangerous substances Realease of dangerous substances Sound absorption AW - NPD Acoustic absorption index Sound absorption AW - NPD Dynamic stiffness SD MM/m² 25 Tickness dd, mm 880 Compressibility CP mm 2 Air flow resistivity AFr kPa.s/m² NPD Direct airborne sound insulation index Air flow resistivity AFr kPa.s/m² NPD Direct airborne sound insulation index Air flow resistivity AFr kPa.s/m² NPD Direct airborne sound insulation index Air flow resistivity AFr kPa.s/m² NPD Direct airborne sound insulation index Air flow resistivity AFr kPa.s/m² NPD Direct airborne sound insulation index Air flow resistivity AFr kPa.s/m² NPD Direct airborne sound insulation index Air flow resistivity AFr kPa.s/m² NPD Direct airborne sound insulation index Air flow resistivity AFr kPa.s/m² NPD Direct airborne sound insulation index Air flow resistivity AFr kPa.s/m² NPD Direct airborne sound insulation index Air flow resistivity AFr kPa.s/m² NPD Direct airborne sound insulation index Air flow resistivity AFr kPa.s/m² NPD Direct airborne sound insulation index Air flow resistivity AFr kPa.s/m² NPD Thermal resistance RBo M/m kCMP See below table Air flow resistivity Air Class Tr (Class Tr (Clas	Essential characteristics	Performance	Abbreviation	Unit	Declared performance
Acoustic absorption indexSound absorptionAW-NPDAgree of the properties of	Reaction to fire	Reaction to fire	RtF	Euroclass	С
Dynamic stiffness SD MN/m³ 25 Thickness d, mm 80 Compressibility CP mm 2 Air flow resistivity AFr kPa.s/m² NPD Direct airborne sound insulation index Air flow resistivity AFr kPa.s/m² NPD Direct airborne sound insulation index Air flow resistivity AFr kPa.s/m² NPD Direct airborne sound insulation index Air flow resistivity AFr kPa.s/m² NPD Direct airborne sound insulation index Air flow resistivity AFr kPa.s/m² NPD Direct airborne sound insulation index Air flow resistivity AFr kPa.s/m² NPD Direct airborne sound insulation index Air flow resistivity AFr kPa.s/m² NPD Direct airborne sound insulation index Air flow resistivity AFr kPa.s/m² NPD Direct airborne sound insulation index Air flow resistivity AFr kPa.s/m² NPD Direct airborne sound insulation index Air flow resistivity AFr kPa.s/m² NPD Direct airborne sound insulation index Air flow resistivity AFr kPa.s/m² NPD Direct airborne sound insulation index Air flow resistivity Ap. MP MP Direct airborne sound insulation index Air flow resistivity Air f	Realease of dangerous substances	Realease of dangerous substances			NPD
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Acoustic absorption index	Sound absorption	AW	-	NPD
$ \begin{array}{ c c c c c } \hline mpact noise transmission index & \hline Compressibility & \hline CP & mm & 2 \\ \hline Air flow resistivity & AFr & kPa.s/m² & NPD \\ \hline Direct airborne sound insulation index & Air flow resistivity & AFr & kPa.s/m² & NPD \\ \hline Direct airborne sound insulation index & Air flow resistivity & AFr & kPa.s/m² & NPD \\ \hline Continous glowing combustion & & & & NPD \\ \hline Continous glowing combustion & & & & NPD \\ \hline Continous glowing combustion & & & & NPD \\ \hline Continous glowing combustion & & & & NPD \\ \hline Thermal resistance & R_0 & m² K/W & see below table Thermal resistance & R_0 & m² K/W & see below table Thermal resistance & R_0 & m² K/W & See below table Thermal resistance & R_0 & mm & 70-100 \\ \hline Thermal conductivity & \lambda_0 & W/m K & 0,038 & 77 & 100 $		Dynamic stiffness	SD	MN/m³	25
$\frac{1}{\text{Air flow resistivity}} \qquad \text{AFr} \qquad \frac{1}{\text{KPa.s/m}^2} \qquad \text{NPD}$ $\frac{1}{\text{Direct airbome sound insulation index}} \qquad \text{Air flow resistivity} \qquad \text{AFr} \qquad \frac{1}{\text{KPa.s/m}^2} \qquad \text{NPD}$ $\frac{1}{\text{Continous glowing combustion}} \qquad \qquad \frac{1}{\text{NPD}}$ $\frac{1}{\text{Thermal resistance}} \qquad \frac{1}{\text{Ro}} \qquad \frac{1}{\text{Month of the main resistance}} \qquad \frac{1}{\text{Ro}} \qquad \frac{1}{Month of the main resis$		Thickness	d _L	mm	80
Direct airborne sound insulation index	Impact noise transmission index	Compressibility	СР	mm	2
Continous glowing combustion Continous glowing combustion NPD Thermal resistance R ₀ m² k/W see below table Thermal conductivity λ_0 W/m K 0,038 Thickness dass T Class T7 Class T		Air flow resistivity	AFr	kPa.s/m²	NPD
$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	Direct airborne sound insulation index	Air flow resistivity	AFr	kPa.s/m²	NPD
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Continous glowing combustion	Continous glowing combustion			NPD
$\frac{\text{Thickness}}{\text{Thickness}} = \frac{d_N}{T} \qquad \frac{mm}{Class} \qquad \frac{70-100}{T}$ $\frac{\text{Thickness}}{\text{Thickness}} = \frac{d_N}{T} \qquad \frac{mm}{Class} \qquad \frac{70-100}{T}$ $\frac{\text{Water permeability}}{\text{Water permeability}} \qquad \frac{\text{Short term water absorption}}{\text{Long term water absorption}} \qquad \frac{WS}{WS} \qquad \frac{kg/m^2}{kg/m^2} \qquad < 3$ $\frac{MU}{Z} \qquad \frac{NPD}{MU} \qquad \frac{NPD}{Z} \qquad \frac{NPD}{MV} \qquad \frac{NPD}{Z} \qquad \frac{NPD}{MV} \qquad N$	Thermal resistance	Thermal resistance	R _D	m² K/W	see below table
$\frac{\text{Thickness class}}{\text{Thickness class}} & \frac{d_N}{T} & \frac{mm}{Class} & \frac{70\text{-}100}{\text{Thickness class}} \\ \text{Water permeability} & \frac{\text{Short term water absorption}}{\text{Long term water absorption}} & \frac{WS}{WS} & \frac{kg/m^2}{kg/m^2} & <1 \\ \text{Long term water absorption} & \frac{WL(P)}{Z} & \frac{kg/m^2}{Kg/m^2} & <3 \\ \frac{MU}{Z} & \frac{-1}{MW^2} & -1 \\ \frac{MU}{Z} & -1 \\ \frac{MU}{Z} & \frac{-1}{MW^2} & -1 \\ \frac{MU}{Z} & $		Thermal conductivity	λ _D	W/m K	0,038
$\frac{\text{Thickness class}}{\text{Short term water absorption}} \qquad \frac{\text{T}}{\text{WS}} \qquad \frac{\text{Class}}{\text{kg/m}^2} \qquad <1$ $\text{Water permeability} \qquad \frac{\text{Short term water absorption}}{\text{Long term water absorption}} \qquad \frac{\text{WS}}{\text{WS}} \qquad \frac{\text{kg/m}^2}{\text{kg/m}^2} \qquad <1$ $\text{Long term water absorption} \qquad \frac{\text{WL(P)}}{\text{V}} \qquad \frac{\text{kg/m}^2}{\text{kg/m}^2} \qquad <3$ $\frac{\text{MU}}{\text{SPD}} \qquad \frac{-1}{\text{MPD}} \qquad \frac{\text{NPD}}{\text{MV}} \qquad \frac{-1}{\text{MPD}} \qquad \frac{\text{NPD}}{\text{MV}} \qquad \frac{-1}{\text{MV}} \qquad \frac{1}{\text{MV}} \qquad \frac{-1}{\text{MV}} \qquad $		Thickness	d _N	mm	70-100
Water permeability Long term water absorption WL(P) kg/m² <3 Water vapour permeability Water vapour transmission MU - NPD Compressive strength Z m2hPa/mg >10 Compressive strength CS(10) kPa 60 Point Load PL(5) N 600 Durability of reaction to fire against heat, weathering, ageing/degradation Reaction to fire RtF Euroclass C Durability of thermal resistance against heat, weathering, ageing/degradation Thermal resistance R _D m² K/W see below table Thermal conductivity λ _D W/m K 0,038 Durability of compressive strength against heat, weathering, ageing/degradation Tensile strength perpendicular to faces TR kPa 20 Durability of compressive strength against heat, weathering, ageing/degradation Compressive creep CC(l ₁ /l ₂ /y) σ _c mm NPD		Thickness class	T	Class	T7
	Water permeability	Short term water absorption	WS	kg/m²	<1
Water vapour permeability Compressive strength Compressive stress CS(10) kPa 60		Long term water absorption	WL(P)	kg/m²	<3
$\frac{2}{\text{Compressive strength}} = \frac{2}{\text{Compressive stress}} = \frac{2}{\text{CS(10)}} = \frac{2}{\text{kPa}} = \frac{510}{\text{kPa}}$ $\frac{2}{\text{Compressive strength}} = \frac{2}{\text{Point Load}} = \frac{2}{P$	Water vapour permeability	Water vapour transmission	MU	-	NPD
Compressive strength Point Load PL(5) N 600 Durability of reaction to fire against heat, weathering, ageing/degradation Reaction to fire RtF Euroclass C Durability of thermal resistance against heat, weathering, ageing/degradation Thermal resistance Thermal conductivity N _D Durability of thermal sesistance against heat, weathering, ageing/degradation Thermal conductivity N _D Durability characteristics DS (70,90) Tensile/Flexural strength Tensile strength perpendicular to faces TR RPa 20 Durability of compressive strength against heat, weathering, ageing/degradation Compressive creep CC(i ₁ /i ₂ /y) σ _c mm NPD			Z	m2hPa/mg	>10
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Compressive strength	Compressive stress	CS(10)	kPa	60
$\frac{\text{ageing/degradation}}{\text{Durability of thermal resistance against heat, weathering, ageing/degradation}} \\ \frac{\text{Thermal resistance}}{\text{Durability of thermal resistance against heat, weathering, ageing/degradation}} \\ \frac{\text{Thermal resistance}}{\text{Durability characteristics}} \\ \frac{\text{Thermal resistance}}{\text{Durability of hermal resistance}} \\ \frac{\text{Thermal conductivity}}{\text{Durability characteristics}} \\ \frac{\text{DS (70,90)}}{\text{DS (70,90)}} \\ \frac{\text{W/m K}}{\text{NPD}} \\ \frac{\text{NPD}}{\text{NPD}} \\ \frac{\text{Durability of compressive strength against heat, weathering, ageing/degradation}} \\ \frac{\text{Compressive creep}}{\text{CC(i_1/i_2/y)}} \\ \frac{\text{CC(i_1/i_2/y)}}{\text{CC}} \\ \frac{\text{mm}}{\text{mm}} \\ \frac{\text{NPD}}{\text{NPD}} \\ \frac{\text{NPD}}{\text{CC(i_1/i_2/y)}} \\ \frac{\text{Compressive creep}}{\text{CC(i_1/i_2/y)}} \\ \frac{\text{NPD}}{\text{NPD}} \\ \frac{\text{NPD}}{\text{NPD}$		Point Load	PL(5)	N	600
Durability of thermal resistance against heat, weathering, ageing/degradation Thermal conductivity h_D		Reaction to fire	RtF	Euroclass	С
ageing/degradation $\frac{1}{D}$ $\frac{1}{$		Thermal resistance	R _D	m² K/W	see below table
Tensile/Flexural strength Tensile strength perpendicular to faces TR kPa 20 Durability of compressive strength against heat, weathering, ageing/degradation Compressive creep CC(i ₁ /i ₂ /y) σ _c mm NPD		Thermal conductivity	λ _D	W/m K	0,038
Durability of compressive strength against heat, weathering, ageing/degradation CC(i ₁ /i ₂ /y) σ_c mm NPD		Durability characteristics	DS (70,90)	%	NPD
ageing/degradation Compressive creep CC(I ₁ /I ₂ /y) o _c mm NPD	Tensile/Flexural strength	Tensile strength perpendicular to faces	TR	kPa	20
NDD: No Performance Determined		Compressive creep	CC(i ₁ /i ₂ /y) σ _c	mm	NPD
IN D. NOT CHOIMANCE DETERMINED	NPD: No Performance Determined	1			ı

9 The performance of the product identified in points 1 and 2 is in conformity with the declared performance in point 8.

Thickness	d _N (mm)	70	80	90	100
Thermal resistance	$R_D (m^2 K/W)$	1,80	2,10	2,35	2,60

This declaration of performance is issued under the sole responsibility of the manufacturer identified in point 4.

Name: Dr. Chadiarakou Stella Quality Assurance Manager Function:

Place: Thessaloniki 20/3/2020 Date: Signature: