## **Declaration of Performance**

DoP Number:	GR-2028-003
1 Unique identification code of the product-type:	MW-EN 13162-T4-WS-WL(P)
2 Identification of the construction product as required under Article 11(4) of the regulation n° 305/2011/EU:	FIBRANgeo B-570-AL
3 Intended use or uses of the construction product, in accordance with the applicable harmonised technical specification, as foreseen by the manufacturer:	Thermal Insulation of Building (ThIB)
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° 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:	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° 305/2011/EU:	AVCP - System 1 - System 3
7 Notified Certification bodies FIW (Forschunginstitut für Wärmeschutz e.v München) N° 0751 and MPA (Materialprüfanstalt fün das Bauwesen Hannover) N° 0764 performed, carried out the determination of the product type, the initial inspection of the manufacturing plant and of factory 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.	0751-CPR-223.0-01
8 Declared performance according to harmonized standard:	EN 13162:2012+A1:2015

CE fibran

Reaction to fire         Read         Read of dangerous substances         A           Realease of dangerous substances         NR         NR         NR           Acoustic absorption index         Sound absorption         AW         NR           Acoustic absorption index         Sound absorption         AW         NR           Impact noise transmission index         Dynamic suffices         SD         MN/m <sup>2</sup> NR           Impact noise transmission index         Air flow resistivity         AFr         kPa.s/m <sup>2</sup> NR           Direct airborne sound insulation index         Air flow resistivity         AFr         kPa.s/m <sup>2</sup> NR           Compressibility         Continous glowing combustion         Continous glowing combustion         NR         0.0         NR           Continous glowing combustion         Continous glowing combustion         MR 60.0         NR         0.0         NR         0.0         NR           Water permeability         Nator permeability         Ao         WTm K         0.0         NR	8 Declared performance according to harmonized standard: EN 1							
Realease of dangerous substances         NI           Acoustic absorption index         Sound absorption         AW         -         NI           Acoustic absorption index         Sound absorption         AW         -         NI           Impact noise transmission index         Dynamic stiffness         SD         MM/m <sup>1</sup> NI           Compressibility         CP         mm         NI           Direct airborne sound insulation index         Air flow resistivity         AFr         kPa.s/m <sup>2</sup> NI           Continuus glowing combustion         Continuus glowing combustion         -         NI         NI           Thermal resistance         Ro         m <sup>2</sup> K/W         see below         NI           Thickness         T         Class         T         Class         NI           Water permeability         Water vapour permeability         Water vapour permeability         MU         -         NI           Compressive strength         Compressive stress         CS1(0)         kPa         NI           Durability of reaction to fire against heat, weathering, ageing/degradation         Reaction to fire         SO         MI           Durability of t	Essential characteristics	Performance	Abbreviation	Unit	Declared performance			
Acoustic absorption index     Sound absorption     AW     -     NM       Impact noise transmission index     Dynamic stiffness     SD     MN/m³     NN       Impact noise transmission index     Direct airborne sound insulation index     Air flow resistivity     AFr     kPa.s/m²     NN       Direct airborne sound insulation index     Air flow resistivity     AFr     kPa.s/m²     NN       Continous glowing combustion     Continous glowing combustion      NN       Thermal resistance     Ro     m² K/W     see bele       Thermal resistance     Ro     m² K/W     see bele       Thermal resistance     Ro     m² K/W     see bele       Thermal resistance     Ro     mm     30:       Water permeability     Air mom     30:     30:       Water vapour permeability     Water vapour transmission     WL(P)     kg/m²     <	Reaction to fire	Reaction to fire	RtF	Euroclass	A1			
	Realease of dangerous substances	Realease of dangerous substances			NPD			
Impact noise transmission indexThicknessd_mmNHCompressibilityCPmmNHCompressibilityAFr $kPa_{S}/m^2$ NHDirect airborne sound insulation indexAir flow resistivityAFr $kPa_{S}/m^2$ NHContinous glowing combustionContinous glowing combustionNHContinous glowing combustionThermal resistanceRomm* KVThermal resistanceRomV/K0.00Thicknessd <sub>k1</sub> mm30-Thicknessd <sub>k1</sub> mm30-ThicknessTClassTVater vapour permeabilityShort term water absorptionWSkg/m²Compressive strengthCompressive strengthMU-NHDurability of reaction to fire against heat, weathering, ageing/degradationReaction to fireRtFEuroclassADurability of compressive strengthThermal resistanceRom* KWsee belowDurability of termal resistance against heat, weathering, ageing/degradationReaction to fireRtFEuroclassADurability of termal resistance against heat, weathering, ageing/degradationThermal resistanceRom/ KWsee belowDurability of compressive strengthThermal resistanceRom/ KBMMDurability of termal resistanceRoMU-NHDurability of termal resistance against heat, weathering, ageing/degradationDirability characteristicsDS (70,90)%NHDurabilit	Acoustic absorption index	Sound absorption	AW	-	NPD			
Impact noise transmission indexCompressibilityCPmmNHAir flow resistivityAFrkPa.s/m2NHDirect airborne sound insulation indexAir flow resistivityAFrkPa.s/m2NHContinous glowing combustionContinous glowing combustionNHThermal resistanceRom² K/Wsee belocThermal resistanceRom² K/Wsee belocThicknessInternal resistanceTClassTThicknessCassTClassTWater permeabilityWater vapour permeabilityW1(P)kg/m2<		Dynamic stiffness	SD	MN/m <sup>3</sup>	NPD			
Letter of the main sector of the m		Thickness	dL	mm	NPD			
Direct airborne sound insulation indexAir flow resistivityAFrkPa.s/m²NHContinous glowing combustionContinous glowing combustionNHThermal resistanceRom² K/Wsee belowThermal resistanceThermal conductivity $\lambda_{D_0}$ W/m K0.00Thicknessd.nmm300-Thickness classTClassTWater permeabilityNu-NHWater vapour permeabilityWater vapour transmissionWSkg/m²Water vapour permeabilityWater vapour transmissionMU-NHCompressive strengthCompressive strengthReaction to fireRefEuroclassADurability of reaction to fire against heat, weathering, ageing/degradationReaction to fireRtfEuroclassADurability of compressive strengthThermal resistanceRom² K/Wsee belowDurability of compressive strengthTensile strength perpendicular to facesTRkPaNHDurability of compressive strengthTensile strength perpendicular to facesTRkPaNHDurability of compressive strength against heat, weathering, ageing/degradationTensile strength perpendicular to facesTRkPaNHDurability of compressive strength against heat, weathering, ageing/degradationTensile strength perpendicular to facesTRkPaNHDurability of compressive strength against heat, weathering, ageing/degradationTensile strength perpendicular to facesTRkPaNH<	Impact noise transmission index	Compressibility	СР	mm	NPD			
Continuous glowing combustion         Continuous glowing combustion         NM           Thermal resistance $R_0$ $m^2 K/W$ see belowing combustion         NM           Thermal resistance         Thermal resistance $R_0$ $m^2 K/W$ see belowing combustion         NM           Water permeability $\lambda_0$ $W/m K$ 0.00         Thickness $d_N$ mm         30-           Water permeability         Short term water absorption         WS $kg/m^2$ Thickness         T         Class         T		Air flow resistivity	AFr	kPa.s/m <sup>2</sup>	NPD			
Thermal resistanceRo mm² K/Wsee belowThermal resistanceThermal conductivity $\lambda_D$ W/m K0,0Thicknessd <sub>N</sub> mm30-Thickness classTClassTWater permeabilityShort term water absorptionWSkg/m²<	Direct airborne sound insulation index	Air flow resistivity	AFr	kPa.s/m <sup>2</sup>	NPD			
Thermal resistanceThermal conductivity $\lambda_0$ W/m K0.00Thermal conductivity $\lambda_0$ W/m K0.00Thickness $d_k$ mm30-Thickness classTClassTWater permeabilityShort term water absorptionWSkg/m²<	Continous glowing combustion	Continous glowing combustion			NPD			
Thermal resistanceThicknessd_Nmm30-Thickness classTClassTWater permeabilityShort term water absorptionWSkg/m²<		Thermal resistance	R <sub>D</sub>	m² K/W	see below table			
$\frac{\text{Thickness}}{\text{Thickness class}} & d_{N} & mm & 30-1000 \\ \hline \text{Thickness class} & T & Class & T \\ \hline \text{Class} & T & Class & T \\ \hline \text{Class} & \text{Class} & T & Class & T \\ \hline \text{Class} & \text{Class} & \text{Class} & T & Class & T \\ \hline \text{Long term water absorption} & WS & kg/m^{2} & < \\ \hline \text{Long term water absorption} & WL(P) & kg/m^{2} & < \\ \hline \text{Compressive trem water absorption} & WL(P) & kg/m^{2} & < \\ \hline \text{Compressive strength} & Water vapour transmission & MU & - & NH \\ \hline \text{Compressive strength} & Compressive stress & CS(10) & kPa & NH \\ \hline \text{Point Load} & PL(5) & N & NH \\ \hline \text{Durability of reaction to fire against heat, weathering, ageing/degradation & RtF & Euroclass & A \\ \hline \text{Durability of thermal resistance against heat, weathering, ageing/degradation & Thermal resistance & R_{D} & m^{2}K/W & see below & OUT \\ \hline \text{Thermal conductivity} & \lambda_{D} & W/m & OUT &$	Thermal resistance	Thermal conductivity	λ <sub>D</sub>	W/m K	0,033			
Water permeabilityShort term water absorptionWSkg/m²<Water vapour permeabilityLong term water absorptionWL(P)kg/m²<	Inermal resistance	Thickness	d <sub>N</sub>	mm	30-300			
Water permeability       Long term water absorption       WL(P)       kg/m²          Water vapour permeability       Water vapour transmission       MU       -       NH         Compressive strength       Compressive stress       CS(10)       kPa       NH         Durability of reaction to fire against heat, weathering, ageing/degradation       Reaction to fire       RtF       Euroclass       A         Durability of thermal resistance against heat, weathering, ageing/degradation       Thermal resistance       Rp       m² K/W       see below         Tensile/Flexural strength       Tensile strength perpendicular to faces       TR       kPa       NH		Thickness class	Т	Class	T4			
Long term water absorptionWL(P)kg/m²<Water vapour permeabilityWater vapour transmissionMUNHCompressive strengthCompressive stressCS(10)kPaNHDurability of reaction to fire against heat, weathering, ageing/degradationReaction to fireRtFEuroclassADurability of thermal resistance against heat, weathering, ageing/degradationThermal resistanceRbm²K/Wsee belowDurability of thermal resistance against heat, weathering, ageing/degradationThermal resistanceRbm²K/Wsee belowDurability of thermal resistance against heat, weathering, ageing/degradationThermal resistanceRbm²K/Wsee belowDurability of thermal resistance against heat, weathering, ageing/degradationThermal resistanceRbm²K/Wsee belowDurability of thermal resistance against heat, weathering, ageing/degradationCompressive strength perpendicular to facesTRkPaNHDurability of compressive strength against heat, weathering, Durability of compressive strength against heat, weathering, Compressive creenCC(i, /b) rbmmNHDurability of compressive strength against heat, weathering, Compressive creenCC(i, /b) rbmmNHDurability of compressive strength against heat, weathering, Compressive creenCC(i, /b) rbmmNHDurability of compressive strength against heat, weathering, Compressive creenCC(i, /b) rbmmNHDurability of compressive strength against heat, weathering, Compressive creenCC(i, /b) rbmmNH <td rowspan="2">Water permeability</td> <td>Short term water absorption</td> <td>WS</td> <td>kg/m²</td> <td>&lt;1</td>	Water permeability	Short term water absorption	WS	kg/m²	<1			
Water vapour permeability         Water vapour transmission         Z         m2hPa/mg         >1           Compressive strength         Compressive stress         CS(10)         kPa         NK           Point Load         PL(5)         N         NK           Durability of reaction to fire against heat, weathering, ageing/degradation         Reaction to fire         RtF         Euroclass         A           Durability of thermal resistance against heat, weathering, ageing/degradation         Thermal resistance         Ro         m <sup>2</sup> K/W         see below           Durability of thermal resistance against heat, weathering, ageing/degradation         Thermal resistance         Ro         W/M K         0,0           Durability of thermal resistance against heat, weathering, ageing/degradation         Thermal resistance         Ro         W/M K         0,0           Durability of compressive strength         Tensile strength perpendicular to faces         TR         kPa         NK           Durability of compressive strength against heat, weathering, Durability of compressive strength against heat, weathering, against heat, weathering, Durability of compressive strength against heat, weathering, Compressive creen         CC(i,i,i,v) r.         mm         NK		Long term water absorption	WL(P)	kg/m²	<3			
Compressive strength     Compressive stress     CS(10)     kPa     NF       Durability of reaction to fire against heat, weathering, ageing/degradation     Reaction to fire     RtF     Euroclass     A       Durability of thermal resistance against heat, weathering, ageing/degradation     Reaction to fire     RtF     Euroclass     A       Durability of thermal resistance against heat, weathering, ageing/degradation     Thermal resistance     Rp     m²K/W     see below       Durability of thermal resistance against heat, weathering, ageing/degradation     Thermal conductivity $\lambda_D$ W/m K     0,0       Durability of compressive strength     Tensile strength perpendicular to faces     TR     kPa     NF       Durability of compressive strength against heat, weathering, ageing/degradation     C(fi/d/v) g.     mm     NF	M		MU	-	NPD			
$ \begin{array}{c c} Compressive strength & \hline Point Load & PL(5) & N & NF \\ \hline Point Load & PL(5) & N & NF \\ \hline Durability of reaction to fire against heat, weathering, ageing/degradation & Reaction to fire & RtF & Euroclass & A \\ \hline Durability of thermal resistance against heat, weathering, ageing/degradation & \hline Thermal resistance & R_D & m^2 K/W & see below & 0,0 \\ \hline Durability of thermal resistance against heat, weathering, ageing/degradation & \hline Thermal resistance & R_D & m^2 K/W & see below & 0,0 \\ \hline Thermal conductivity & \lambda_D & W/m K & 0,0 \\ \hline Durability characteristics & DS (70,90) & \% & NF \\ \hline Tensile/Flexural strength & Tensile strength perpendicular to faces & TR & kPa & NF \\ \hline Durability of compressive strength against heat, weathering, compressive creep & CC(i_1/L/V) r. & mm & NF \\ \hline Durability of compressive strength against heat, weathering, compressive creep & CC(i_1/L/V) r. & mm & NF \\ \hline Durability of compressive strength against heat, weathering, compressive creep & CC(i_1/L/V) r. & mm & NF \\ \hline Durability of compressive strength against heat, weathering, compressive creep & CC(i_1/L/V) r. & mm & NF \\ \hline Durability of compressive strength against heat, weathering, compressive creep & CC(i_1/L/V) r. & mm & NF \\ \hline Durability of compressive strength against heat, weathering, compressive creep & CC(i_1/L/V) r. & mm & NF \\ \hline Durability of compressive strength against heat, weathering, compressive creep & CC(i_1/L/V) r. & mm & NF \\ \hline Durability of compressive strength against heat, weathering, compressive creep & CC(i_1/L/V) r. & mm & NF \\ \hline Durability of compressive strength against heat, weathering, compressive creep & CC(i_1/L/V) r. & mm & NF \\ \hline Durability of compressive strength against heat, weathering, compressive creep & CC(i_1/L/V) r. & mm & NF \\ \hline Durability of compressive strength against heat, weathering & CC(i_1/L/V) r. & mm & NF \\ \hline Durability of compressive strength against heat heat heat heat heat heat heat hea$	water vapour permeability	water vapour transmission	Z	m2hPa/mg	>150			
Point LoadPL(5)NNFDurability of reaction to fire against heat, weathering, ageing/degradationReaction to fireRtFEuroclassADurability of thermal resistance against heat, weathering, ageing/degradationThermal resistanceR_0 $m^2 K/W$ see belowDurability of thermal resistance against heat, weathering, ageing/degradationThermal resistanceR_0 $M/M K$ 0,0Durability characteristicsDS (70,90)%NFTensile/Flexural strengthTensile strength perpendicular to facesTRkPaNFDurability of compressive strength against heat, weathering, Durability of compressive strength against heat, weathering, Durability of compressive strength against heat, weathering, Compressive creenCC(i, i, i, j) r.mmNF		Compressive stress	CS(10)	kPa	NPD			
ageing/degradation     Reaction to tire     Ref     Euroclass     A       Durability of thermal resistance against heat, weathering, ageing/degradation     Thermal resistance     Rp     m² K/W     see below       Thermal conductivity $\lambda_p$ W/m K     0,0       Durability of compressive strength     Tensile strength perpendicular to faces     DS (70,90)     %     NF       Durability of compressive strength against heat, weathering,     Compressive creen     CC(i,/i,/y) g.     mm     NF	compressive strength	Point Load	PL(5)	Ν	NPD			
Durability of thermal resistance against heat, weathering, ageing/degradation     Thermal conductivity $\lambda_{\rm D}$ W/m K     0,0       Durability of compressive strength     Durability characteristics     DS (70,90)     %     NF       Durability of compressive strength against heat, weathering, Durability of compressive strength against heat, weathering, Compressive creen     C(1,1,2)) g.     mm     NF		Reaction to fire	RtF	Euroclass	A1			
ageing/degradation           Inermal conductivity         Ap         W/m K         0,0           Durability characteristics         DS (70,90)         %         NF           Tensile/Flexural strength         Tensile strength perpendicular to faces         TR         kPa         NF           Durability of compressive strength against heat, weathering,         Compressive creen         CC(i,/i,/y) r.         mm         NF		Thermal resistance	R <sub>D</sub>	m² K/W	see below table			
Durability characteristics     DS (70,90)     %     NH       Tensile/Flexural strength     Tensile strength perpendicular to faces     TR     kPa     NH       Durability of compressive strength against heat, weathering,     Compressive creen     CC(i,/i,/y) r.     mm     NH	· · · · · · · · · · · · · · · · · · ·	Thermal conductivity	λ <sub>D</sub>	W/m K	0,033			
Durability of compressive strength against heat, weathering,		Durability characteristics	DS (70,90)	%	NPD			
	Tensile/Flexural strength	Tensile strength perpendicular to faces	TR	kPa	NPD			
			CC(i <sub>1</sub> /i <sub>2</sub> /y) σ <sub>c</sub>	mm	NPD			
NPD: No Performance Determined	NPD: No Performance Determined	•	· ·					

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

Thickness	d <sub>N</sub> (mm)	30	40	50	60	70	80	90	100	110	120	130	140	150	160	180	200
Thermal resistance	$R_D (m^2 K/W)$	0,90	1,20	1,50	1,80	2,10	2,40	2,70	3,00	3,30	3,60	3,90	4,20	4,50	4,80	5,45	6,05

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

Name:	Dr. Chadiarakou Stella
Function:	Quality Assurance Manager
Place:	Thessaloniki
Date:	20/3/2020
Signature:	John