

Declaration of performance

- Unique identification code of the product-type:
Flumroc - SWISS ABSORBER
MW-EN 13162+A1:2015-T4-WS-WL(P)-MU1
- Type and serial number to identify the construction product:
see Product label
- Intended use of the construction product as foreseen by the manufacturer, in accordance with the applicable harmonised technical specification:
Thermal insulation for building
- Name and contact address of the manufacturer according to Art. 11 (5) EU BauPV:
Flumroc AG, Industriestrasse 8, CH-8890 Flums
- Contact address of the authorised representative according to Art. 12 (2) EU BauPV, responsible for making the declaration of performance available on the website
(<http://www.flumroc.ch/dop>):
Flumroc AG, Industriestrasse 8, CH-8890 Flums
- Applicable System or Systems of Assessment and Verification of Constancy of Performance (AVCP):
System 1+ and 3
- Notified Body identification number:
0751-CPR-087.0
- In case of the declaration of performance concerning a construction product for which a European Technical Assessment has been issued:
not relevant
- Declared performance:

Requirement Characteristic from mandate	Requirements hEN 13162+A1:2015	Shortcuts	Performance	Unit	
Reaction to fire - Euroclass	4.2.6	Reaction to fire	--	A1	Euroclass
Release of dangerous substances to the indoor environment	4.3.13	Release of dangerous substances ^{e)}	--	NPD *)	--
Acoustic absorption index	4.3.11	Sound absorption	--	NPD *)	levels
Impact noise transmission index (for floors)	4.3.12	Air flow resistivity	AF _r	NPD *)	kPa·s/m ²
	4.3.9	Dynamic stiffness	SD	NPD *)	MN/kg/m ³
	4.3.10.2	Thickness dL	T	4	levels
	4.3.10.4	Compressibility	CP	NPD *)	levels
Direct airborne sound insulation index	4.3.12	Air flow resistivity	AF _r	NPD *)	kPa·s/m ²
Continuous glowing combustion	4.3.15	Continuous glowing combustion ^{e)}	--	NPD *)	--
Thermal resistance RD	4.2.1	Thermal conductivity	λ _D	0.033	W/(m·K)
	4.2.1	Thermal resistance RD	R _D	s. table 1	m ² ·K/W
	4.2.3	Thickness	d	s. table 1	mm
Water permeability	4.3.7.1	Short term water absorption	W _p	≤ 1	kg/m ²
	4.3.7.2	Long term water absorption	W _{lp}	≤ 3	kg/m ²
Water vapour permeability	4.3.8	Water vapour transmission	MU	ca. 1	μ
Compressive strength	4.3.3	Compressive stress or compressive strength	CS(10)	NPD *)	kPa
	4.3.5	Point load	PL(5)	NPD *)	N



Declaration of performance

Requirement Characteristic from mandate	Requirements hEN 13162+A1:2015	Shortcuts	Performance	Unit
Durability of reaction to fire against heat, weathering, ageing / degradation	4.2.7 Durability characteristics ^{a)}	--	NPD *)	--
Durability of reaction to fire against heat, weathering, ageing / degradation	4.2.1 Thermal conductivity	λ_D	0.033	W/(m·K)
	4.2.1 Thermal resistance RD	R_D	s. table 1	m ² ·K/W
	4.2.7 Durability characteristics ^{d)}	DS(70,90)	NPD *)	%
Tensile / Flexural strength	4.3.4 Tensile strength perpendicular to faces ^{d)}	TR	NPD *)	kPa
Durability of compressive strength against ageing / degradation	4.3.6 Compressive creep	CC	NPD *)	kPa

- a) No change in reaction to fire properties for MW products. The fire performance of MW does not deteriorate with time. The Euroclass classification of the product is related to the organic content, which cannot increase with time.
- b) Thermal conductivity of MW products does not change with time, experience has shown the fibre structure to be stable and the porosity contains no other gases than atmospheric air.
- c) For dimensional stability thickness only.
- d) This characteristic also covers handling and installation.
- e) European test methods are under development.
- f) Also valid and applicable for multilayers.
- *) NPD = (No Performance Determined)

10. The performance of the above product corresponds to the declared performance(s). For the purposes of drawing up the declaration of performance in accordance with the relevant legislation, the above-mentioned manufacturer is solely responsible.

Signed for and on behalf of the manufacturer by:

Flums, 04.03.2020



Fabrizio Sorchi
Application Technology



Roland Pfiffner
Quality Manager

Table 1

Thickness mm	Thermal conductivity in W/(mK)												
	0.033	0.034	0.035	0.036	0.037	0.038	0.039	0.040	0.041	0.042	0.043	0.044	0.045
10	0.30	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.20	0.20	0.20	0.20	0.20
15	0.45	0.40	0.40	0.40	0.40	0.35	0.35	0.35	0.35	0.35	0.30	0.30	0.30
20	0.60	0.55	0.55	0.55	0.50	0.50	0.50	0.50	0.45	0.45	0.45	0.45	0.40
25	0.75	0.70	0.70	0.65	0.65	0.65	0.60	0.60	0.60	0.55	0.55	0.55	0.55
30	0.90	0.85	0.85	0.80	0.80	0.75	0.75	0.75	0.70	0.70	0.65	0.65	0.65
40	1.20	1.15	1.10	1.10	1.05	1.05	1.00	1.00	0.95	0.95	0.90	0.90	0.85
50	1.50	1.45	1.40	1.35	1.35	1.30	1.25	1.25	1.20	1.15	1.15	1.10	1.10
60	1.80	1.75	1.70	1.65	1.60	1.55	1.50	1.50	1.45	1.40	1.35	1.35	1.30
70	2.10	2.05	2.00	1.90	1.85	1.80	1.75	1.75	1.70	1.65	1.60	1.55	1.55
80	2.40	2.35	2.25	2.20	2.15	2.10	2.05	2.00	1.95	1.90	1.85	1.80	1.75
90	2.70	2.60	2.55	2.50	2.40	2.35	2.30	2.25	2.15	2.10	2.05	2.00	2.00
100	3.00	2.90	2.85	2.75	2.70	2.60	2.55	2.50	2.40	2.35	2.30	2.25	2.20
110	3.30	3.20	3.10	3.05	2.95	2.85	2.80	2.75	2.65	2.60	2.55	2.50	2.40
120	3.60	3.50	3.40	3.30	3.20	3.15	3.05	3.00	2.90	2.85	2.75	2.70	2.65
130	3.90	3.80	3.70	3.60	3.50	3.40	3.30	3.25	3.15	3.05	3.00	2.95	2.85
140	4.20	4.10	4.00	3.85	3.75	3.65	3.55	3.50	3.40	3.30	3.25	3.15	3.10
150	4.50	4.40	4.25	4.15	4.05	3.90	3.80	3.75	3.65	3.55	3.45	3.40	3.30
160	4.80	4.70	4.55	4.40	4.30	4.20	4.10	4.00	3.90	3.80	3.70	3.60	3.55
170	5.15	5.00	4.85	4.70	4.55	4.45	4.35	4.25	4.10	4.00	3.95	3.85	3.75
180	5.45	5.25	5.10	5.00	4.85	4.70	4.60	4.50	4.35	4.25	4.15	4.05	4.00
190	5.75	5.55	5.40	5.25	5.10	5.00	4.85	4.75	4.60	4.50	4.40	4.30	4.20
200	6.05	5.85	5.70	5.55	5.40	5.25	5.10	5.00	4.85	4.75	4.65	4.50	4.40
210	6.35	6.15	6.00	5.80	5.65	5.50	5.35	5.25	5.10	5.00	4.85	4.75	4.65
220	6.65	6.45	6.25	6.10	5.90	5.75	5.60	5.50	5.35	5.20	5.10	5.00	4.85
230	6.95	6.75	6.55	6.35	6.20	6.05	5.85	5.75	5.60	5.45	5.30	5.20	5.10
240	7.25	7.05	6.85	6.65	6.45	6.30	6.15	6.00	5.85	5.70	5.55	5.45	5.30
250	7.55	7.35	7.10	6.90	6.75	6.55	6.40	6.25	6.05	5.95	5.80	5.65	5.55
260	7.85	7.60	7.40	7.20	7.00	6.80	6.65	6.50	6.30	6.15	6.00	5.90	5.75
270	8.15	7.90	7.70	7.50	7.25	7.10	6.90	6.75	6.55	6.40	6.25	6.10	6.00
280	8.45	8.20	8.00	7.75	7.55	7.35	7.15	7.00	6.80	6.65	6.50	6.35	6.20
290	8.75	8.50	8.25	8.05	7.80	7.60	7.40	7.25	7.05	6.90	6.70	6.55	6.40
300	9.05	8.80	8.55	8.30	8.10	7.85	7.65	7.50	7.30	7.10	6.95	6.80	6.65
310	9.35	9.10	8.85	8.60	8.35	8.15	7.90	7.75	7.55	7.35	7.20	7.00	6.85
320	9.65	9.40	9.10	8.85	8.60	8.40	8.20	8.00	7.80	7.60	7.40	7.25	7.10
330	10.00	9.70	9.40	9.15	8.90	8.65	8.45	8.25	8.00	7.85	7.65	7.50	7.30
340	10.30	10.00	9.70	9.40	9.15	8.90	8.70	8.50	8.25	8.05	7.90	7.70	7.55
350	10.60	10.25	10.00	9.70	9.45	9.20	8.95	8.75	8.50	8.30	8.10	7.95	7.75
360	10.90	10.55	10.25	10.00	9.70	9.45	9.20	9.00	8.75	8.55	8.35	8.15	8.00
370	11.20	10.85	10.55	10.25	10.00	9.70	9.45	9.25	9.00	8.80	8.60	8.40	8.20
380	11.50	11.15	10.85	10.55	10.25	10.00	9.70	9.50	9.25	9.00	8.80	8.60	8.40
390	11.80	11.45	11.10	10.80	10.50	10.25	10.00	9.75	9.50	9.25	9.05	8.85	8.65
400	12.10	11.75	11.40	11.10	10.80	10.50	10.25	10.00	9.75	9.50	9.30	9.05	8.85
410	12.40	12.05	11.70	11.35	11.05	10.75	10.50	10.25	10.00	9.75	9.50	9.30	9.10
420	12.70	12.35	12.00	11.65	11.35	11.05	10.75	10.50	10.20	10.00	9.75	9.50	9.30
430	13.00	12.60	12.25	11.90	11.60	11.30	11.00	10.75	10.45	10.20	10.00	9.75	9.55
440	13.30	12.90	12.55	12.20	11.85	11.55	11.25	11.00	10.70	10.45	10.20	10.00	9.75



Déclaration des performances

- Code d'identification unique du produit type:
Flumroc - SWISS ABSORBER
MW-EN 13162+A1:2015-T4-WS-WL(P)-MU1
- Numéro de type, de lot ou de série ou tout autre élément permettant l'identification du produit de construction, conformément à l'article 11 (4):
voir étiquette
- Usage ou usages prévus du produit de construction, conformément à la spécification technique harmonisée applicable, comme prévu par le fabricant:
Produit isolant pour le bâtiment
- Nom, raison sociale ou marque déposée et adresse de contact du fabricant, conformément à l'article 11 (5):
Flumroc AG, Industriestrasse 8, CH-8890 Flums
- Le cas échéant, nom et adresse de contact du mandataire dont le mandat couvre les tâches visées à l'article 12 (2), site web (<http://www.flumroc.ch/dop>):
Flumroc AG, Industriestrasse 8, CH-8890 Flums
- Le ou les systèmes d'évaluation et de vérification de la constance des performances du produit de construction, conformément à l'annexe V:
Systèmes 1+ et 3
- Le laboratoire agréé FIW München, après audit initial de l'usine Flumroc à Flums (CH) et examen des procédures internes de contrôle, de suivi et d'évaluation de la production selon le système 1, a établi ce qui suit: Attestation de conformité des contrôles internes de production:
0751-CPR-087.0
- Dans le cas de la déclaration des performances concernant un produit de construction pour lequel une évaluation technique européenne a été délivrée:
pas relevant
- Performances déclarées:

Caractéristiques essentielles	Exigence hEN 13162+A1:2015		Abréviation	Performances déclarées	Unité
Réaction au feu-Euroclasse	4.2.6	Réaction au feu	--	A1	Euroclasse
Taux d'émission de substances dangereuses pour l'environnement intérieur	4.3.13	Émission de substances dangereuses ^{e1}	--	NPD *)	--
Indice d'absorption acoustique	4.3.11	Absorption acoustique	--	NPD *)	Niveau
Indice de transmission des bruits d'impact (pour les sols)	4.3.12	Ecoulement de l'air	AF _r	NPD *)	kPa s/m ²
	4.3.9	Rigidité dynamique	SD	NPD *)	MN/m ³
	4.3.10.2	Épaisseur	T	4	Niveau
Indice d'isolement aux bruits aériens directs	4.3.10.4	Catégorie d'utilisation	CP	NPD *)	Niveau
	4.3.12	Ecoulement de l'air	AF _r	NPD *)	kPa s/m ²
Combustion avec incandescence continue	4.3.15	Combustion avec incandescence continue ^{e1}	--	NPD *)	--
Résistance thermique RD	4.2.1	Conductivité thermique	λ _D	0.033	W/(mK)
	4.2.1	Résistance thermique RD	R _D	v. tableau 1	m ² K/W
	4.2.3	Épaisseur	d	v. tableau 1	mm
Perméabilité à l'eau	4.3.7.1	Absorption d'eau court terme	W _p	≤ 1	kg/m ²
	4.3.7.2	Absorption d'eau long terme	W _{lp}	≤ 3	kg/m ²
Perméabilité à la vapeur d'eau	4.3.8	Facteur de résistance à la diffusion	MU	ca. 1	μ



Caractéristiques essentielles	Exigence hEN 13162+A1:2015	Abréviation	Performances déclarées	Unité	
Résistance à la pression	4.3.3	Contrainte en compression ou résistance à la compression	CS(10)	NPD *)	kPa
	4.3.5	Charge ponctuelle pour 5 mm de déformation	PL(5)	NPD *)	N
Durabilité de la réaction au feu par rapport à l'exposition à la chaleur ou aux intempéries, au vieillissement / à la dégradation	4.2.7	Caractéristiques de durabilité ^{a)}	--	NPD *)	--
Durabilité de la résistance thermique par rapport à l'exposition à la chaleur ou aux intempéries, au vieillissement / à la dégradation	4.2.1	Conductivité thermique	λ_D	0.033	W/(mK)
	4.2.1	Résistance thermique RD	R_D	v. tableau 1	m ² K/W
	4.2.7	Caractéristiques de durabilité ^{c)}	DS(70,90)	NPD *)	%
Résistance à la traction / flexion	4.3.4	Résistance à la traction perpend. à la surface du panneau ^{d)}	TR	NPD *)	kPa
Durabilité de la résistance à la compression par rapport au vieillissement / à la dégradation	4.3.6	Fluage en compression	CC	NPD *)	kPa

a) Pas de variation en ce qui concerne les propriétés de réaction au feu des produits en laine minérale. La tenue au feu de la laine minérale ne se dégrade pas avec le temps. La classification Euroclasses du produit est liée à la teneur en matières organiques qui ne peut augmenter avec le temps.

b) La conductivité thermique des produits en laine minérale ne varie pas avec le temps. L'expérience a montré que la structure fibreuse est stable et que les vides sont occupés par de l'air atmosphérique.

c) Pour la stabilité dimensionnelle de l'épaisseur uniquement.

d) Cette caractéristique concerne également la manipulation et l'installation.

e) Des méthodes d'essai européennes sont en cours de développement.

f) Également valides et applicables aux multicouches.

*) NPD = Performance Non Déclarée (No Performance Determined)

10. La performance du présent produit correspond à la performance déclarée / aux performances déclarées. Pour l'élaboration de la déclaration de performance en accord avec les prescriptions juridiques applicables, la productrice susnommée est la seule responsable.

Signé pour le fabricant et en son nom par:

Flums, 04.03.2020



Fabrizio Sorchi
Technique et support de vente



Roland Pfiffner
Assurance qualité

Tableau 1

Epaisseur mm	Conductivité thermique en W/(mK)												
	0.033	0.034	0.035	0.036	0.037	0.038	0.039	0.040	0.041	0.042	0.043	0.044	0.045
	Valeur R [m ² ·K/W]												
10	0.30	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.20	0.20	0.20	0.20	0.20
15	0.45	0.40	0.40	0.40	0.40	0.35	0.35	0.35	0.35	0.35	0.30	0.30	0.30
20	0.60	0.55	0.55	0.55	0.50	0.50	0.50	0.50	0.45	0.45	0.45	0.45	0.40
25	0.75	0.70	0.70	0.65	0.65	0.65	0.60	0.60	0.60	0.55	0.55	0.55	0.55
30	0.90	0.85	0.85	0.80	0.80	0.75	0.75	0.75	0.70	0.70	0.65	0.65	0.65
40	1.20	1.15	1.10	1.10	1.05	1.05	1.00	1.00	0.95	0.95	0.90	0.90	0.85
50	1.50	1.45	1.40	1.35	1.35	1.30	1.25	1.25	1.20	1.15	1.15	1.10	1.10
60	1.80	1.75	1.70	1.65	1.60	1.55	1.50	1.50	1.45	1.40	1.35	1.35	1.30
70	2.10	2.05	2.00	1.90	1.85	1.80	1.75	1.75	1.70	1.65	1.60	1.55	1.55
80	2.40	2.35	2.25	2.20	2.15	2.10	2.05	2.00	1.95	1.90	1.85	1.80	1.75
90	2.70	2.60	2.55	2.50	2.40	2.35	2.30	2.25	2.15	2.10	2.05	2.00	2.00
100	3.00	2.90	2.85	2.75	2.70	2.60	2.55	2.50	2.40	2.35	2.30	2.25	2.20
110	3.30	3.20	3.10	3.05	2.95	2.85	2.80	2.75	2.65	2.60	2.55	2.50	2.40
120	3.60	3.50	3.40	3.30	3.20	3.15	3.05	3.00	2.90	2.85	2.75	2.70	2.65
130	3.90	3.80	3.70	3.60	3.50	3.40	3.30	3.25	3.15	3.05	3.00	2.95	2.85
140	4.20	4.10	4.00	3.85	3.75	3.65	3.55	3.50	3.40	3.30	3.25	3.15	3.10
150	4.50	4.40	4.25	4.15	4.05	3.90	3.80	3.75	3.65	3.55	3.45	3.40	3.30
160	4.80	4.70	4.55	4.40	4.30	4.20	4.10	4.00	3.90	3.80	3.70	3.60	3.55
170	5.15	5.00	4.85	4.70	4.55	4.45	4.35	4.25	4.10	4.00	3.95	3.85	3.75
180	5.45	5.25	5.10	5.00	4.85	4.70	4.60	4.50	4.35	4.25	4.15	4.05	4.00
190	5.75	5.55	5.40	5.25	5.10	5.00	4.85	4.75	4.60	4.50	4.40	4.30	4.20
200	6.05	5.85	5.70	5.55	5.40	5.25	5.10	5.00	4.85	4.75	4.65	4.50	4.40
210	6.35	6.15	6.00	5.80	5.65	5.50	5.35	5.25	5.10	5.00	4.85	4.75	4.65
220	6.65	6.45	6.25	6.10	5.90	5.75	5.60	5.50	5.35	5.20	5.10	5.00	4.85
230	6.95	6.75	6.55	6.35	6.20	6.05	5.85	5.75	5.60	5.45	5.30	5.20	5.10
240	7.25	7.05	6.85	6.65	6.45	6.30	6.15	6.00	5.85	5.70	5.55	5.45	5.30
250	7.55	7.35	7.10	6.90	6.75	6.55	6.40	6.25	6.05	5.95	5.80	5.65	5.55
260	7.85	7.60	7.40	7.20	7.00	6.80	6.65	6.50	6.30	6.15	6.00	5.90	5.75
270	8.15	7.90	7.70	7.50	7.25	7.10	6.90	6.75	6.55	6.40	6.25	6.10	6.00
280	8.45	8.20	8.00	7.75	7.55	7.35	7.15	7.00	6.80	6.65	6.50	6.35	6.20
290	8.75	8.50	8.25	8.05	7.80	7.60	7.40	7.25	7.05	6.90	6.70	6.55	6.40
300	9.05	8.80	8.55	8.30	8.10	7.85	7.65	7.50	7.30	7.10	6.95	6.80	6.65
310	9.35	9.10	8.85	8.60	8.35	8.15	7.90	7.75	7.55	7.35	7.20	7.00	6.85
320	9.65	9.40	9.10	8.85	8.60	8.40	8.20	8.00	7.80	7.60	7.40	7.25	7.10
330	10.00	9.70	9.40	9.15	8.90	8.65	8.45	8.25	8.00	7.85	7.65	7.50	7.30
340	10.30	10.00	9.70	9.40	9.15	8.90	8.70	8.50	8.25	8.05	7.90	7.70	7.55
350	10.60	10.25	10.00	9.70	9.45	9.20	8.95	8.75	8.50	8.30	8.10	7.95	7.75
360	10.90	10.55	10.25	10.00	9.70	9.45	9.20	9.00	8.75	8.55	8.35	8.15	8.00
370	11.20	10.85	10.55	10.25	10.00	9.70	9.45	9.25	9.00	8.80	8.60	8.40	8.20
380	11.50	11.15	10.85	10.55	10.25	10.00	9.70	9.50	9.25	9.00	8.80	8.60	8.40
390	11.80	11.45	11.10	10.80	10.50	10.25	10.00	9.75	9.50	9.25	9.05	8.85	8.65
400	12.10	11.75	11.40	11.10	10.80	10.50	10.25	10.00	9.75	9.50	9.30	9.05	8.85
410	12.40	12.05	11.70	11.35	11.05	10.75	10.50	10.25	10.00	9.75	9.50	9.30	9.10
420	12.70	12.35	12.00	11.65	11.35	11.05	10.75	10.50	10.20	10.00	9.75	9.50	9.30
430	13.00	12.60	12.25	11.90	11.60	11.30	11.00	10.75	10.45	10.20	10.00	9.75	9.55
440	13.30	12.90	12.55	12.20	11.85	11.55	11.25	11.00	10.70	10.45	10.20	10.00	9.75



Dichiarazione di prestazione

- Codice di identificazione unico del prodotto-tipo:
Flumroc - SWISS ABSORBER
MW-EN 13162+A1:2015-T4-WS-WL(P)-MU1
- Numero di tipo, lotto, serie o qualsiasi altro elemento che consenta l'identificazione del prodotto da costruzione ai sensi dell'articolo 11 (4):
vedi etichetta
- Uso o usi previsti del prodotto da costruzione, conformemente alla relativa specifica tecnica armonizzata, come prevista dal fabbricante:
Isolamento termico per edifici
- Nome, denominazione commerciale registrata o marchio registrato e indirizzo del fabbricante ai sensi dell'articolo 11 (5):
Flumroc AG, Industriestrasse 8, CH-8890 Flums
- Se opportuno, nome e indirizzo del mandatario il cui mandato copre i compiti dell'articolo 12 (2), sito web (<http://www.flumroc.ch/dop>):
Flumroc AG, Industriestrasse 8, CH-8890 Flums
- Sistema o sistemi di valutazione e verifica della costanza della prestazione del prodotto da costruzione, allegato V:
Sistema 1+ e 3
- L'organismo notificato FIW di Monaco di Baviera ha eseguito la prima ispezione dello stabilimento e del sistema di controllo della produzione, nonché la sorveglianza permanente e la valutazione del sistema di controllo della produzione in base al sistema 1 e rilascia quanto segue: Attestazione di conformità del sistema di controllo della produzione:
0751-CPR-087.0
- Nel caso di una dichiarazione di prestazione relativa ad un prodotto da costruzione per il quale è stata rilasciata una Valutazione Tecnica Europea:
non rilevante
- Prestazione dichiarata:

Requirement Characteristic from mandate	Requirements hEN 13162+A1:2015		Shortcuts	Performance	Unit
Reaction to fire - Euroclasses	4.2.6	Reaction to fire	--	A1	Euroclass
Release of dangerous substances to the indoor environment	4.3.13	Release of dangerous substances ^{ei}	--	NPD *)	--
Acoustic absorption index	4.3.11	Sound absorption	--	NPD *)	levels
Impact noise transmission index (for floors)	4.3.12	Air flow resistivity	AF _r	NPD *)	kPa s/m ²
	4.3.9	Rigidità dinamica	SD	NPD *)	MN/kg/m ³
	4.3.10.2	Thickness dL	T	4	levels
	4.3.10.4	Compressibility	CP	NPD *)	levels
Direct airborne sound insulation index	4.3.12	Air flow resistivity	AF _r	NPD *)	kPa s/m ²
Continuous glowing combustion	4.3.15	Continuous glowing combustion ^{ei}	--	NPD *)	--
Thermal resistance RD	4.2.1	Thermal conductivity	λ _D	0.033	W/(mK)
	4.2.1	Thermal resistance RD	R _D	v. tabella 1	m ² K/W
	4.2.3	Thickness	d	v. tabella 1	mm
Water permeability	4.3.7.1	Short term water absorption	W _p	≤ 1	kg/m ²
	4.3.7.2	Long term water absorption	W _{ip}	≤ 3	kg/m ²
Water vapour permeability	4.3.8	Water vapour transmission	MU	ca. 1	μ
Compressive strength	4.3.3	Compressive stress or compressive strength	CS(10)	NPD *)	kPa
	4.3.5	Point load	PL(5)	NPD *)	N



Requirement Characteristic from mandate	Requirements hEN 13162+A1:2015	Shortcuts	Performance	Unit
Durability of reaction to fire against heat, weathering, ageing / degradation	4.2.7 Durability characteristics ^{a)}	--	NPD *)	--
Durability of reaction to fire against heat, weathering, ageing / degradation	4.2.1 Thermal conductivity	λ_D	0.033	W/(mK)
	4.2.1 Thermal resistance RD	R_D	v. tabella 1	m ² K/W
	4.2.7 Durability characteristics ^{d)}	DS(70,90)	NPD *)	%
Tensile / Flexural strength	4.3.4 Tensile strength perpendicular to faces ^{d)}	TR	NPD *)	kPa
Durability of compressive strength against ageing / degradation	4.3.6 Compressive creep	CC	NPD *)	kPa

a) No change in reaction to fire properties for MW products. The fire performance of MW does not deteriorate with time. The Euroclass classification of the product is related to the organic content, which cannot increase with time.

b) Thermal conductivity of MW products does not change with time, experience has shown the fibre structure to be stable and the porosity contains no other gases than atmospheric air.

c) For dimensional stability thickness only.

d) This characteristic also covers handling and installation.

e) European test methods are under development.

f) Also valid and applicable for multilayers.

*) NPD = Prestazione Non Dichiarata (No Performance Determined)

10. La prestazione del presente prodotto corrisponde alla prestazione dichiarata/alle prestazioni dichiarate. Il fabbricante summenzionato è l'unico responsabile per la redazione della dichiarazione di prestazione in conformità delle disposizioni di leggi vigenti e applicabili in materia.

Firmato a nome e per conto di:

Flums, 04.03.2020



Fabrizio Sorchi
Tecnica e supporto vendita



Roland Pfiffner
Responsabile qualità

Tabella 1

Spessori mm	Conduktività termica in W/(mK)													
	0.033	0.034	0.035	0.036	0.037	0.038	0.039	0.040	0.041	0.042	0.043	0.044	0.045	
	Valore R [m ² ·K/W]													
10	0.30	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.20	0.20	0.20	0.20	0.20	
15	0.45	0.40	0.40	0.40	0.40	0.35	0.35	0.35	0.35	0.35	0.30	0.30	0.30	
20	0.60	0.55	0.55	0.55	0.50	0.50	0.50	0.50	0.45	0.45	0.45	0.45	0.40	
25	0.75	0.70	0.70	0.65	0.65	0.65	0.60	0.60	0.60	0.55	0.55	0.55	0.55	
30	0.90	0.85	0.85	0.80	0.80	0.75	0.75	0.75	0.70	0.70	0.65	0.65	0.65	
40	1.20	1.15	1.10	1.10	1.05	1.05	1.00	1.00	0.95	0.95	0.90	0.90	0.85	
50	1.50	1.45	1.40	1.35	1.35	1.30	1.25	1.25	1.20	1.15	1.15	1.10	1.10	
60	1.80	1.75	1.70	1.65	1.60	1.55	1.50	1.50	1.45	1.40	1.35	1.35	1.30	
70	2.10	2.05	2.00	1.90	1.85	1.80	1.75	1.75	1.70	1.65	1.60	1.55	1.55	
80	2.40	2.35	2.25	2.20	2.15	2.10	2.05	2.00	1.95	1.90	1.85	1.80	1.75	
90	2.70	2.60	2.55	2.50	2.40	2.35	2.30	2.25	2.15	2.10	2.05	2.00	2.00	
100	3.00	2.90	2.85	2.75	2.70	2.60	2.55	2.50	2.40	2.35	2.30	2.25	2.20	
110	3.30	3.20	3.10	3.05	2.95	2.85	2.80	2.75	2.65	2.60	2.55	2.50	2.40	
120	3.60	3.50	3.40	3.30	3.20	3.15	3.05	3.00	2.90	2.85	2.75	2.70	2.65	
130	3.90	3.80	3.70	3.60	3.50	3.40	3.30	3.25	3.15	3.05	3.00	2.95	2.85	
140	4.20	4.10	4.00	3.85	3.75	3.65	3.55	3.50	3.40	3.30	3.25	3.15	3.10	
150	4.50	4.40	4.25	4.15	4.05	3.90	3.80	3.75	3.65	3.55	3.45	3.40	3.30	
160	4.80	4.70	4.55	4.40	4.30	4.20	4.10	4.00	3.90	3.80	3.70	3.60	3.55	
170	5.15	5.00	4.85	4.70	4.55	4.45	4.35	4.25	4.10	4.00	3.95	3.85	3.75	
180	5.45	5.25	5.10	5.00	4.85	4.70	4.60	4.50	4.35	4.25	4.15	4.05	4.00	
190	5.75	5.55	5.40	5.25	5.10	5.00	4.85	4.75	4.60	4.50	4.40	4.30	4.20	
200	6.05	5.85	5.70	5.55	5.40	5.25	5.10	5.00	4.85	4.75	4.65	4.50	4.40	
210	6.35	6.15	6.00	5.80	5.65	5.50	5.35	5.25	5.10	5.00	4.85	4.75	4.65	
220	6.65	6.45	6.25	6.10	5.90	5.75	5.60	5.50	5.35	5.20	5.10	5.00	4.85	
230	6.95	6.75	6.55	6.35	6.20	6.05	5.85	5.75	5.60	5.45	5.30	5.20	5.10	
240	7.25	7.05	6.85	6.65	6.45	6.30	6.15	6.00	5.85	5.70	5.55	5.45	5.30	
250	7.55	7.35	7.10	6.90	6.75	6.55	6.40	6.25	6.05	5.95	5.80	5.65	5.55	
260	7.85	7.60	7.40	7.20	7.00	6.80	6.65	6.50	6.30	6.15	6.00	5.90	5.75	
270	8.15	7.90	7.70	7.50	7.25	7.10	6.90	6.75	6.55	6.40	6.25	6.10	6.00	
280	8.45	8.20	8.00	7.75	7.55	7.35	7.15	7.00	6.80	6.65	6.50	6.35	6.20	
290	8.75	8.50	8.25	8.05	7.80	7.60	7.40	7.25	7.05	6.90	6.70	6.55	6.40	
300	9.05	8.80	8.55	8.30	8.10	7.85	7.65	7.50	7.30	7.10	6.95	6.80	6.65	
310	9.35	9.10	8.85	8.60	8.35	8.15	7.90	7.75	7.55	7.35	7.20	7.00	6.85	
320	9.65	9.40	9.10	8.85	8.60	8.40	8.20	8.00	7.80	7.60	7.40	7.25	7.10	
330	10.00	9.70	9.40	9.15	8.90	8.65	8.45	8.25	8.00	7.85	7.65	7.50	7.30	
340	10.30	10.00	9.70	9.40	9.15	8.90	8.70	8.50	8.25	8.05	7.90	7.70	7.55	
350	10.60	10.25	10.00	9.70	9.45	9.20	8.95	8.75	8.50	8.30	8.10	7.95	7.75	
360	10.90	10.55	10.25	10.00	9.70	9.45	9.20	9.00	8.75	8.55	8.35	8.15	8.00	
370	11.20	10.85	10.55	10.25	10.00	9.70	9.45	9.25	9.00	8.80	8.60	8.40	8.20	
380	11.50	11.15	10.85	10.55	10.25	10.00	9.70	9.50	9.25	9.00	8.80	8.60	8.40	
390	11.80	11.45	11.10	10.80	10.50	10.25	10.00	9.75	9.50	9.25	9.05	8.85	8.65	
400	12.10	11.75	11.40	11.10	10.80	10.50	10.25	10.00	9.75	9.50	9.30	9.05	8.85	
410	12.40	12.05	11.70	11.35	11.05	10.75	10.50	10.25	10.00	9.75	9.50	9.30	9.10	
420	12.70	12.35	12.00	11.65	11.35	11.05	10.75	10.50	10.20	10.00	9.75	9.50	9.30	
430	13.00	12.60	12.25	11.90	11.60	11.30	11.00	10.75	10.45	10.20	10.00	9.75	9.55	
440	13.30	12.90	12.55	12.20	11.85	11.55	11.25	11.00	10.70	10.45	10.20	10.00	9.75	

