DECLARATION OF PERFORMANCE

No. DoP-G01-12-24

according to EN 13163:2012+A2:2016 and Regulation (EU) No. 305/2011 laying down harmonised conditions for the marketing of construction products

1. Unique identification code of the product-type:

   ## FRAGMAT Graphite NEO Super F

   Wall cavity and surface insulation slabs

   Format: 1000 x 500 x d_N [mm]

2. Type, LOT No., and Production Date/Hour:

   See product label

3. Intended use:

   Thermal insulation product for buildings

4. Manufacturer:

   FRAGMAT - MAK d.o.o.

   221 str., No. 175, 1300 Kumanovo, NMK

5. Authorized importer:

   MACON S.A.

   Apollonos str. Ligaria Pilaias, 55535 Thessaloniki, Greece

6. Systems of AVCP:

   Sistem 3

7. Harmonized standard:

   EN 13163:2012+A2:2016

   Notified body/Testing laboratory (by the European Commission):

   ID: NB 2032; Building Research Institute - NISI

   Nikola Petkov Blvd. No. 86, 1618 Sophia, Bulgaria

8. Declared performance:

Table 8.1

Essential characteristics	Performance					Harmonized technical specifications
	Testing performance, symbol	Method	Declaration	Unit	Tolerance	
Thermal resistance	Thermal conductivity, λ_D	EN 12667	0,031	W/m·K	/	**EN 13163:2012 +A2:2016**
	Thermal resistance, R_D	EN 12667	*see table 8.2*	m^2·K/W	/	
	Nominal thickness, d_N	EN 823	*see table 8.2*	mm	/	
Reaction to fire	Reaction to fire, RtF	EN 13501-1	Euroclass E	/	/	
Durability of reaction to fire against heat, weathering, ageing / degradation	Durability characteristics		NPD		/	
Durability of thermal resistance against heat, weathering, adeing / degradation	Thermal conductivity, λ_D	EN 12667	0,031	W/m·K	/	
	Thermal resistance, R_D	EN 12667	*see table 8.2*	m^2·K/W	/	
	Durability characteristics		NPD			
Compresive strength	Compressive stress at 10% deformation, CS(10)	EN 826	CS(10)90	kPa	≥ 90	
Tensile/Flexural strength	Bending strength, BS	EN 12089	BS135	kPa	≥ 135	
	Tensile strength perpendicular to faces, TR	EN 1607	TR150	kPa	≥ 150	
Durability of compressive strength against ageing / degradation	Compressive creep, CC(i_1,i_2,y)	EN 1606	NPD	%	/	
Water permeability	Long term water absorption by partial immersion, WL(P)	EN 12087	WL(P)0,2	kg/m^2	≤ 0,2	
	Long term water absorption by total immersion, WL(T)	EN 12087	WL(T)2	%	≤ 2	
	Long term water absorption by diffusion, WD(V)	EN 12088	NPD	%	/	
Water vapour permeability	Water vapour diffusion resistance factor, μ	EN 12086	45	/	30 - 70	
Impact noise transmission index (for floors)	Dynamic stiffness, SD	EN 29052-1	NPD	MN/m^3	/	
	Thickness, d_L or d_B	EN 12431	NPD	mm	/	
	Compressibility, CP	EN 1606	NPD	mm	/	
Continuous glowing combustion	Continuous glowing combustion	No method available	NPD			
Release of dangerous substances to the indoor environment	Release of dangerous substances	No method available	NPD			

Table 8.2

Nominal thickness, d_N [mm]	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150
Thermal resistance, R_D [$m^2 \cdot K/W$]	0,30	0,60	0,95	1,25	1,60	1,90	2,25	2,55	2,90	3,20	3,50	3,85	4,15	4,50	4,80
Nominal thickness, d_N [mm]	160	170	180	190	200	210	220	230	240	250	260	270	280	290	300
Thermal resistance, R_D [$m^2 \cdot K/W$]	5,15	5,45	5,80	6,10	6,45	6,75	7,05	7,40	7,70	8,05	8,35	8,70	9,00	9,35	9,65

Table 8.3

Other relevant characteristics	**Performance**				**Harmonized technical specifications**
	Method	**Declaration**	**Unit**	**Tolerance**	
Length	EN 822	L2	mm	± 2	**EN 13163:2012 +A2:2016**
Width	EN 822	W2	mm	± 2	
Thickness	EN 823	T1	mm	± 1	
Squareness	EN 824	S5	mm	± 5	
Flatness	EN 825	P3	mm/m	± 3	
Dimensional stability under normal lab conditions	EN 1603	DS(N)2	%	± 0,2	
Dimensional stability at 70°C/48h	EN 1604	DS(70,-)1	%	≤ 1	

Designation code:

EPS-EN 13163-L2-W2-T1-S5-P3-CS(10)80-BS135-TR150-DS(N)2-DS(70,-)1-WL(P)0,2-WL(T)2

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

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

Signed for and on behalf of the manufacturer by: Director:

Kumanovo, 11.09.2014 Danijel Krstić