



**EU-Declaration of Performance**

In accordance with Annex III of Regulation (EU) No.305/2011  
and Commission Delegated Regulation (EU) No 574/2014

**No: EPS-80-G/20 11 740-7-R2**

1. Unique identification code of the product-type:

**HYGROSMART –TH-EPS 80 G**

2. Intended use:

**Thermal insulation boards from graphite expanded polystyrene (EPS) for use on  
building facades for external thermal insulation composite systems (ETICS)**

3. Manufacturer:

**ALCHIMICA SA  
7, Lampsakou Str.,  
11528 Athens-Greece**

4. Systems of AVCP:

**System 3**

5. (a) Harmonized standard:

**EN 13163:2012+A1:2015**

Notified body/dies:

**GSH (Guteschutzgemeinschaft Hartschaum e.V.) (0919)**

6. Declared performance

Performance determined of **HYGROSMART – TH-EPS 80 G**

Essential characteristics	Performance		Harmonized technical specification	Standard
Reaction to Fire	Euroclass	E	EN 13163	EN 13501-1
Thermal conductivity	$\lambda_d$ (W/m.K)	0.031	EN 13163	EN 12667
Thickness tolerance	T	$\pm 1$	EN 13163	EN 823
Length tolerance	L	$\pm 2$	EN 13163	EN 822
Width tolerance	W	$\pm 2$	EN 13163	EN 822
Squareness tolerance	S	$\pm 2$	EN 13163	EN 824
Flatness tolerance	P	$\pm 5$	EN 13163	EN 825
Dimensional stability (normal laboratory conditions_23°C/50%)	DS(N)	$\leq 2\%$	EN 13163	EN 1603
Dimensional stability (specified laboratory conditions_70°C/90%)	DS(70,-)1	$\leq 1\%$	EN 13163	EN 1604
Compressive strength at 10% deformation	CS(10) [kPa]	$\geq 80$	EN 13163	EN 826
Bending strength	BS [kPa]	$\geq 125$	EN 13163	EN 12089
Tensile strength	TR [kPa]	$\geq 150$	EN 13163	EN 1607
Water absorption by partial immersion (24h)	WL(P) (kg/m <sup>2</sup> )	$\leq 0.5\%$	EN 13163	EN 12088
Water vapour diffusion resistance factor	$\mu$ [1]	20-40	EN 13163	EN 12086
Water vapour permeability	$\Delta$ [mg/(Pa.h.m)]	0.015-0.030	EN 13163	EN 12086
Shear strength	N/mm <sup>2</sup>	$\geq 0.02\%$	EN 13163	EN 12090
Shear modulus	N/mm <sup>2</sup>	$\geq 1.0$	EN 13163	EN 12090

7. Appropriate Technical Documentation and/or Specific Technical Documentation:

The performance of the product identified above is in conformity with the set of declared performances. This declaration of performance is issued, in accordance with Regulation (EU) No 305/2011, under the sole responsibility of the manufacturer identified above.

Signed for and on behalf of the manufacturer by:

Krimizis Christos  
 CEO

Athens 16/05/2022