

DECLARATION OF PERFORMANCE N. CPR-IT1/0953

- 1) Unique identification code of the product-type: **MAPETHERM EPS SYSTEM**
- 2) Intended uses: **External Thermal Insulation Composite Systems (ETICS) with rendering on EPS for the use as external insulation of building walls**
- 3) Manufacturer: **MAPEI S.p.A. – Via Cafiero, 22 – 20158 Milan – Italy - www.mapei.it**
- 4) Systems of AVCP: **System 2+**
- 5) European Assessment Document: **EAD 040083-00-0404, released on January, 2019**
 European Technical Assessment: **ETA 21/0947 issued on 04/07/2023**
 Technical Assessment Body: **INSTITUT DE TECNOLOGIA DE LA CONSTRUCCIO DE CATALUNYA - ITEC**
 Notified bodies: **INSTITUT DE TECNOLOGIA DE LA CONSTRUCCIO DE CATALUNYA - ITEC, N. 1220,**
- 6) Performances declared:

Essential characteristics	Performances
Reaction to fire: Façade fire performance: Content, emission and/or release of dangerous substances –leachable substances: Water absorption: Water tightness of the ETICS: hygrothermal behaviour Water tightness: freeze-thaw behaviour Impact resistance: Water vapour permeability:	Reaction to fire of the ETICS: Class B-s1,d0 (using Class E insulation boards) NPD NPD Water absorption of the base coat and the rendering system (expressed as kg/m² after 24 hours): < 0,5 with Mapetherm AR1 ≥ 0,5 with Mapetherm AR1 GG / AR1 Light / AR1 MAXI Water absorption of the insulation boards: According to the DoP of the insulation boards (see ETA 21/0947 tables A1.1 to A1.5) Pass, without defects Pass, freeze-thaw resistant Category I or II (See ETA 21/0947 table 4) Water vapour permeability of the rendering system: Sd ≤ 2,0 m Water vapour permeability of the insulation boards:

Essential characteristics	Performances
Bond strength between base coat and insulation product:	According to the DoP of the insulation boards (see ETA 21/0947 tables A1.1 to A1.5) ≥ 80 kPa, cohesive failure in the insulation board
Bond strength between adhesive and substrate:	Dry condition: ≥ 250 kPa, cohesive rupture in the adhesive 48 h immersion in water + 2 h at 23°C and 50% RH: ≥ 80 kPa, cohesive rupture in the adhesive 48 h immersion in water + 7 days at 23°C and 50% RH: ≥ 250 kPa, cohesive rupture in the adhesive
Bond strength between adhesive and insulation product:	Dry condition: ≥ 80 kPa. Cohesive rupture in the insulation boards 48 h immersion in water + 2 h at 23°C and 50% RH: ≥ 30 kPa. Adhesive rupture and/or cohesive rupture in the insulation boards 48 h immersion in water + 7 days at 23°C and 50% RH: ≥ 80 kPa. Cohesive rupture in the insulation boards
Tensile strength perpendicular to the faces of insulation product:	In dry conditions: TR100 or TR150 according to the DoP of the insulation boards In wet conditions: NPD
Shear strength and shear modulus of elasticity test of ETICS:	Shear strength: ≥ 20 kPa. Shear modulus of elasticity: ≥ 1000 kPa (see ETA 21/0947 tables A1.1 to A1.5)
Render strip tensile test: Bond strength after ageing:	NPD ≥ 80 kPa with adhesive or cohesive rupture in the insulation boards
Mechanical and physical characteristics of the mesh:	Tensile strength of the glass fibre mesh (mean value): as delivered state: Warp ≥ 40 N/mm, Weft ≥ 38 N/mm after artificial ageing: Warp ≥ 20 N/mm, Weft ≥ 20 N/mm
Airborne sound insulation of ETICS: Dynamic stiffness of the thermal insulation product:	NPD NPD
Thermal resistance and thermal transmittance of ETICS:	<u>Thermal resistance and thermal transmittance of the ETICS:</u> See ETA 21/0947 section 3.5 and table 10 <u>Thermal resistance of the thermal insulation boards:</u> According to the DoP of the insulation boards (see ETA 21/0947 tables A1.1 to A1.5)

The product performances above declared refers to the system as described in ETA 21/0947 "Table 0: Components of the ETICS Mapetherm EPS System".

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: **Martino Lorenzo – Corporate Quality Management**

Milan, 31/10/2023



DoP in Pdf format are available in the Mapei website.

REACH information on the components of the product:

- Insulation boards, Fixings and Glass fibre mesh are article in accordance with Article 3 of the REACH Regulation (EC) no. 1907/2006 and pursuant to Article 31 and 33 of the above-mentioned Regulation does not require any Safety Data Sheet. While using the product, pay attention to the recommendations written in the Technical Data Sheet and to the safety requirements laid down in the workplace.
- For all the other components the information referred to Article 31 or, as appropriate, to Article 33 of the REACH Regulation (EC) no. 1907/2006 and following amendments are indicated in the safety data sheet that MAPEI makes available on the website along with this current Declaration of Performance.

Revision 2 notes:	Amended typo in NB number
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MAPETHERM EPS SYSTEM CE MARKING *Annex to DoP N. CPR-IT1/0953*



CPR-IT1/0953

EAD n°040083-00-0404

MAPETHERM EPS SYSTEM

External Thermal Insulation Composite Systems (ETICS) with rendering on EPS for the use as external insulation of building walls

Reaction to fire of the ETICS:

Class B-s1,d0 (using Class E insulation boards)

NPD

NPD

< 0,5 with Mapetherm AR1

≥ 0,5 with Mapetherm AR1 GG / AR1 Light / AR1 MAXI

According to the DoP of the insulation boards (see
ETA 21/0947 tables A1.1 to A1.5)

Pass, without defects

Pass, freeze-thaw resistant

Category I or II (See ETA 21/0947 table 4)

Water vapour permeability of the rendering system:
 $S_d \leq 2.0 \text{ m}$

Water vapour permeability of the insulation boards:
According to the DoP of the insulation boards (see
ETA 21/0947 tables A1.1 to A1.5)

≥ 80 kPa, cohesive failure in the insulation board

Dry condition:

≥ 250 kPa, cohesive rupture in the adhesive
 48 h immersion in water + 2 h at 23°C and 50% RH:
 ≥ 80 kPa, cohesive rupture in the adhesive
 48 h immersion in water + 7 days at 23°C and 50% RH:
 ≥ 250 kPa, cohesive rupture in the adhesive

MAPETHERM EPS SYSTEM
CE MARKING
Annex to DoP N. CPR-IT1/0953



Bond strength between adhesive and insulation product:	Dry condition: ≥ 80 kPa. Cohesive rupture in the insulation boards 48 h immersion in water + 2 h at 23°C and 50% RH: ≥ 30 kPa. Adhesive rupture and/or cohesive rupture in the insulation boards 48 h immersion in water + 7 days at 23°C and 50% RH: ≥ 80 kPa. Cohesive rupture in the insulation boards
Tensile strength perpendicular to the faces of insulation product:	In dry conditions: TR100 or TR150 according to the DoP of the insulation boards In wet conditions: NPD
Shear strength and shear modulus of elasticity test of ETICS:	Shear strength: ≥ 20 kPa. Shear modulus of elasticity: ≥ 1000 kPa (see ETA 21/0947 tables A1.1 to A1.5)
Render strip tensile test: Bond strength after ageing:	NPD ≥ 80 kPa with adhesive or cohesive rupture in the insulation boards
Mechanical and physical characteristics of the mesh:	Tensile strength of the glass fibre mesh (mean value): as delivered state: Warp ≥ 40 N/mm, Weft ≥ 38 N/mm after artificial ageing: Warp ≥ 20 N/mm, Weft ≥ 20 N/mm
Airborne sound insulation of ETICS: Dynamic stiffness of the thermal insulation product:	NPD NPD
Thermal resistance and thermal transmittance of ETICS:	<u>Thermal resistance and thermal transmittance of the ETICS:</u> See ETA 21/0947 section 3.5 and table 10 <u>Thermal resistance of the thermal insulation boards:</u> According to the DoP of the insulation boards (see ETA 21/0947 tables A1.1 to A1.5)

Note:

MAPEI supplies the current annex along with the DoP to make the consultancy of the CE marking easier for the international clients. The enclosed CE marking can be slightly different compared to the one printed on the relevant packaging or documentation because of:

- *NPD (No Performance Determined) values can be omitted by the CE marking,*
- *graphic adaptations due to lack of space on the packaging or printing methods used,*
- *different language (the same packaging can be shared by several countries),*
- *the product is already in stock when the updating of the CE marking is implemented,*
- *printing mistakes.*