Istituto per le Tecnologie della Costruzione
Consiglio Nazionale delle Ricerche
Via Lombardia 49 - 20098 San Giuliano Milanese – Italy
tel: +39-02-9806.1 – Telefax: +39-02-98280088
e-mail: segreteria.itab@itc.cnr.it

Designated according to Article 29 of Regulation (EU) N° 305/2011.

EOTA Member
www.eota.eu
European Organisation for Technical Assessment
Organisation Européenne pour l'évaluation technique

European Technical Assessment ETA 18/0554 of 24/09/2021

GENERAL PART

Trade name of the construction product	**UPGREI**
Product family to which the construction product belongs	**PAC 4: THERMAL INSULATION PRODUCTS. COMPOSITE INSULATING KITS/SYSTEMS. Rubber fibre mat to be used for impact sound insulation.**
Manufacturer	**Isolgomma S.r.l. Via dell'Artigianato, 24, 36020 Albettone (VI) - Italy**
Manufacturing plant	**Via dell'Artigianato, 24, 36020 Albettone (VI) - Italy**
This European Technical Assessment contains:	**8 pages, including 3 annexes which form an integral part of this assessment**
This European Technical Assessment is issued in accordance with Regulation (EU) n° 305/2011, on the basis of	**EAD 040048-01-0502 ed. April 2016 – Rubber fibre mat to be used for impact sound insulation**
This version replaces	**ETA 18/0554 (version 01) of 01/08/2018**

The European Technical Assessment is issued by ITC-CNR in Italian and English language. Translations of this European Technical Assessment into other languages shall fully correspond to the original issued document and should be identified as such. Communication of this European Technical Assessment, including transmission by electronic means, shall be in full (excepted the confidential Annex(es) referred to above). However, partial reproduction can be made with the written consent of ITC-CNR (issuing Technical Assessment Body). In this case partial reproduction has to be designated as such.

SPECIFIC PARTS

1. TECHNICAL DESCRIPTION OF THE PRODUCT

This European Technical Assessment applies to the rubber fibre mat named UPGREI which is intended to be used for impact sound insulation under floating screed or comparable solution on solid slabs. The mat is constituted by a layer of EPDM granulated crumbs laid on and hot-anchored to a backing by the means of a synthetic latex adhesive and is delivered in the form of rolls.
The mat is manufactured using pre-consumer recycled ground EPDM scraps.
The backing is composed by a felt of 200 g/m² weight coupled with a non-woven PP sheet of 80 g/m² weight. Along the short side, of 1040 mm total width the last 40 mm are not coated by rubber crumbs so as to leave an overlapping band in order to join the edges of the rolls, thanks to a self-adhesive joining edge positioned on the opposite side on the upper surface of the non-woven sheet (see Annex A1). The binding agent is constituted by an aqueous dispersion of a carboxylated latex.
The impact sound insulation mat is manufactured with the following dimensions:

- nominal length: 5000 mm
- nominal width: 1040 mm
- nominal thickness d_L: 10 mm

The product description by drawing and images is given in Annex A1.

2. SPECIFICATION OF THE INTENDED USE IN ACCORDANCE WITH EUROPEAN ASSESSMENT DOCUMENT N° 040048-01-0502 (hereinafter EAD)

The UPGREI rubber fibre mat is intended to be used as insulating material under floating screeds or comparable solution on solid floor slabs for the improvement of impact sound insulation inside buildings. For this purpose, the impact sound insulation mat is placed in one layer under floating screeds inside buildings not directly exposed to precipitations, wetting or weathering.

Concerning product packaging, transport and storage it is the responsibility of the manufacturer to undertake the appropriate measures and to advise his clients on the transport and storage, as he considers necessary in order to reach the declared performances.
The information about installation is provided with the technical documentation from the Manufacturer and it is assumed that the product will be installed according to it or (in absence of such instructions) according to the usual practice of the building professionals.

The specifications and conditions given by the manufacturer are summarized in Annex B1.

The performances assessed in this European Technical Assessment, according to the applicable EAD, are based on an assumed intended working life of at least 25 years when installed in the works, provided that the conditions for the installation, packaging, transport, storage, installation as well as appropriate use, maintenance and repair are met. The indications given on the working life cannot be interpreted as a guarantee given by the manufacturer, but are to be regarded only as a means for choosing the right products in relation to the expected economically reasonable working life of the works.

3. PERFORMANCE OF THE PRODUCT AND REFERENCES TO THE METHODS USED FOR ITS ASSESSMENT

The tests for performance assessment of UPGREI were carried out in compliance with EAD 040048-01-0502 according to the test methods reported herein, as well for what concerns sampling, conditioning and testing provisions.
The numbering in the following tables corresponds to the numbering of Table 2.1 of EAD 040048-01-0502.

3.1 SAFETY IN CASE OF FIRE (BWR 2)

#	Essential characteristic	Performance
1	Reaction to fire	Class E_{fl}

3.2 HYGIENE, HEALTH AND THE ENVIRONMENT (BWR 3)

#	Essential characteristic	Performance
2	Content and/or release of dangerous substances	No performance assessed.

3.3 PROTECTION AGAINST NOISE (BWR 5)

#	Essential characteristic	Performance
3	Dynamic stiffness	No performance assessed.
4	Impact sound reduction	See Annex C1
5	Geometry	See Annex C1
6	Thickness and compressibility	See Annex C1
7	Mass per unit area	See Annex C1
8	Compressive creep	See Annex C1
9	Compressive stress/strength	No performance assessed.
10	Deformation under specified load and temperature	No performance assessed.
11	Resistance to breaking or cracking	No performance assessed.

3.4 ENERGY ECONOMY AND HEAT RETENTION (BWR 6)

#	Essential characteristic	Performance
12	Thermal resistance	No performance assessed.

4. ASSESSMENT AND VERIFICATION OF CONSTANCY OF PERFORMANCE (AVCP) SYSTEM APPLIED, WITH REFERENCE TO ITS LEGAL BASE

In accordance with the European Assessment Document EAD No. 040048-01-0502 the applicable European legal act is: **Decision 2000/273/EC.**
The system of assessment and verification of constancy of performance (AVCP) is: **3**.

In addition, with regard to reaction to fire for products, the applicable European legal act is **Decision 2000/273/EC**.
The system of assessment and verification of constancy of performance (AVCP) is: **3**.

5. TECHNICAL DETAILS NECESSARY FOR THE IMPLEMENTATION OF THE AVCP SYSTEM, AS PROVIDED FOR IN EAD 040048-01-0502

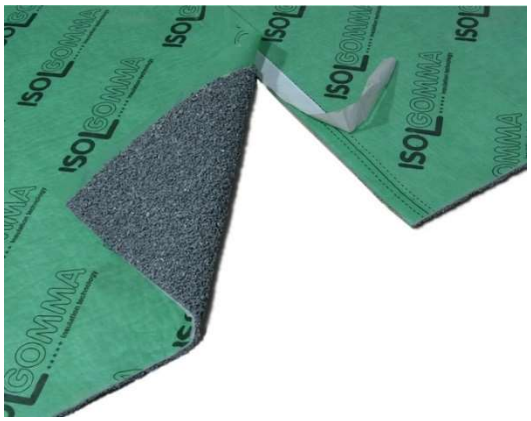
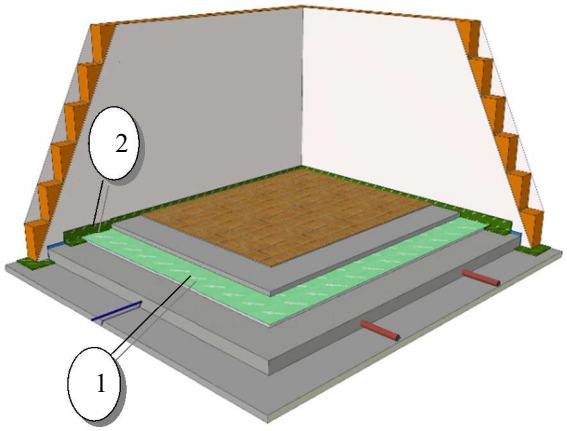
Technical details necessary for the implementation of the AVCP system are laid down in the Control Plan deposited at ITC-CNR.

Issued in San Giuliano Milanese, Italy on 24/09/2021
by ITC – CNR

Professor Antonio Occhiuzzi
Director of ITC-CNR

Occhiuzzi Antonio
25.09.2021 15:37:14
GMT+00:00

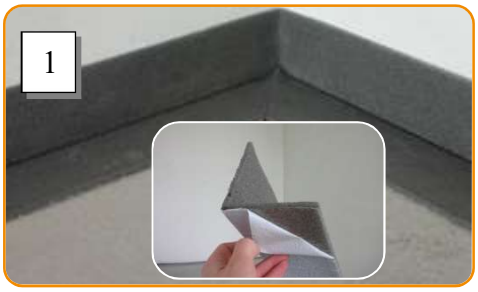
Table A1: Details of the rubber fibre mat UPGREI

 **Figure A1 – Isolgomma Upgrei supplied in rolls**	In the picture, the adhesive stripe with the protective layer (white) can be seen on the left side; on the right, the overlapping band is visible.
 **Figure A2 – Detail of Isolgomma Upgrei in the laying layout**	The picture shows the joint between two rolls, thanks to the adhesive stripe and the overlapping band.
 **Figure A3 – Scheme of the final use of Isolgomma Upgrei**	In the picture, a perimetral strip (2) can be seen. The product “Upgrei” (1) interposed between two cementitious layers (a plant levelling and a load distributing screed).

UPGREI	**Annex A1** **of ETA N° 18/0554**
Product Description – Details of the product and an example of application	

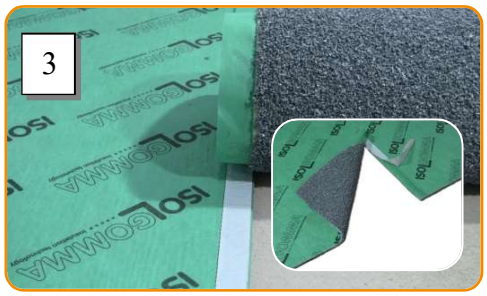
INSTALLATION INSTRUCTIONS

- During installation, in order to join two adjacent rolls, it is necessary to overlap the two rolls by a 4 cm wide band through a self-adhesive stripe located on the lower roll. The rubber granules layer should be continuous, without gaps between adjacent rolls.
- The minimum mass per unit area of the floating screed, which shall be concrete (sand-cement) or anhydrite based, cast in-situ, shall be 100 kg/m^2. The screed shall have a minimum thickness of 50 mm.
- On rising walls, along the floor edging, in order to avoid sonic bridges, decoupling L-shaped edge strips shall be used and the junction between the mat edges and the vertical side of the perimetral strips shall be sealed by using an appropriate adhesive tape.
  A set of commented illustrations completes these instructions.



Apply the adhesive strip to the wall and floor with particular attention to the corners.

Install the acoustic mat with the rubber granules facing downwards.



Joint two adjacent mats using the pre-built adhesive tape and following the dashed lines.

UPGREI	Annex B1/1 of ETA N° 18/0554
Intended Use – Installation Instructions	

INSTALLATION INSTRUCTIONS

Build the screed.

Install the floor finishing (ceramic or wood).

Cut the exceeding part of the edging strip.

UPGREI	Annex B1/2 of ETA N° 18/0554
Intended Use – Installation Instructions	

Table C1: Impact sound reduction ΔL_w

Assessed floor build-up: UPGREI as underlayer in mats and a sand-cement floating screed, cast in-situ, with a mass per unit area of 100 kg/m^2	ΔL_w	[dB]	26

Table C2: Geometry

Nominal length	[mm]	5000
	Class according to EN 16069	L4
Nominal width	[mm]	1040
	Class according to EN 16069	W4
Deviation from squareness in the direction of length and width	S_b [mm/m]	0

Table C3: Thickness and compressibility

Nominal thickness	d_L	[mm]	10 ± 10%
Maximum compressibility	c	[mm]	2,2

Table C4: Mass per unit area

Mass per unit area	[kg/m^2]	2,65 ± 10%

Table C5: Compressive creep X_{ct} (10 years)

UPGREI under σ_{c1} = 0,30 x σ_{20}[1)] = 1,16 kPa	X_{ct} (10 years)	[mm]	1,274
	Total thickness reduction	[mm]	2,574
UPGREI under σ_{c2} = 0,35 x σ_{20}[1)] = 1,36 kPa	X_{ct} (10 years)	[mm]	1,274
	Total thickness reduction	[mm]	2,704

[1)] σ_{20} = stress at 20% deformation by compression

UPGREI	**Annex C1** **of ETA N° 18/0554**
Performances: Impact sound reduction – Geometry – Thickness and compressibility – Mass per unit area – Compressive creep	