

TRASPIR METAL

3D mats for metal roofs

Highly breathable membrane paired with a 3D mat and protective felt

AT
Onorm B4119
UD-k RU

FR
CPT 3651_2
HPV
E1-Sd1-TR2

CH
SIA 232
UD EB

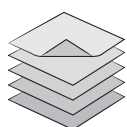
DE
ZVDH
UDB-A
USB-A

IT
UNI 11470
A/R2



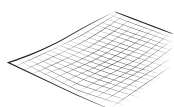
CERTIFIED NOISE REDUCTION

The 3D mats guarantee reduction of airborne and heavy rain noises. Values tested and certified



PROTECTIVE FELT

The breathable membrane with 3D grid includes a fifth layer that blocks impurities and improves ventilation



HIGH DENSITY 3D GRID

The 3D mat has high mechanical strength and is also appropriate for aluminium sheet metal

DID YOU KNOW THAT ...?

CERTIFIED NOISE REDUCTION

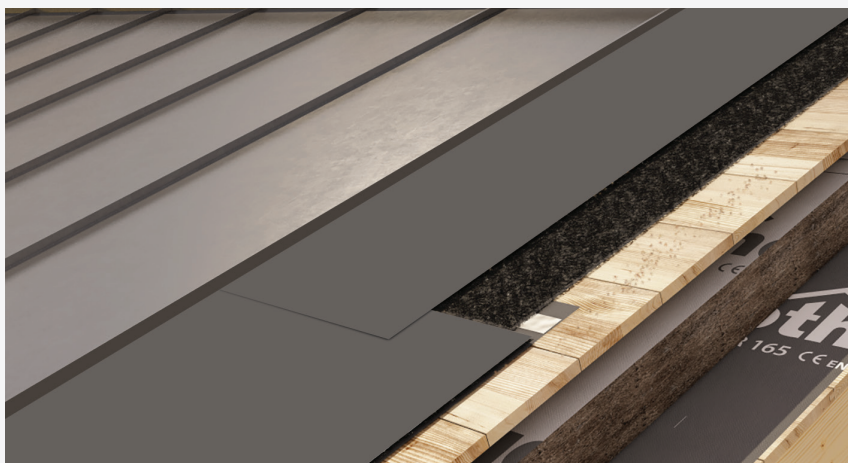
The 3D virgin polypropylene (PP) structure, thanks to its excellent ability to absorb mechanical deformation, constitutes a resilient layer able to absorb a large part of the vibrations caused by heavy rain.

CODES AND DIMENSIONS

code	ex code	description	tape	H x L [m]	A [m ²]	pcs/ 
① TTMET580	D42786	TRASPIR 3D COAT T	T	1.5 x 25	37.5	4
② 3DNET	D42772	3D NET	-	1.4 x 25	35.0	6

WHERE CAN IT
BE APPLIED?





The breathable membrane TRASPIR 3D COAT comes with a 3D grid and additional protective felt on the surface, that prevents the entry of impurities and improves ventilation. The integrated tape should be used only during installation, to make overlapping of sheets easier. For perfect sealing, it is recommended that additional taping be done near the membrane under the protective felt.

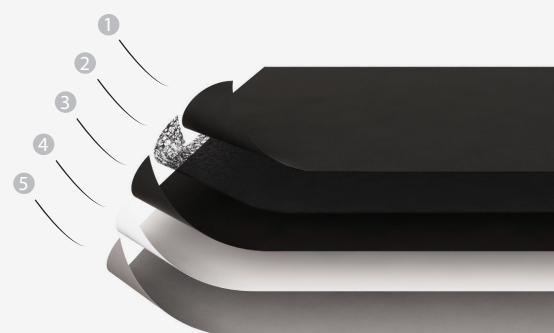
TECHNICAL SPECIFICATIONS

property	standard	① TRASPIR 3D COAT	② 3D NET
		values	values
Mass per unit area	EN 1849-2	585 (300) g/m ²	350 g/m ²
Thickness at 2 kPa	EN 9863-1	8.5 mm	7.5 mm
Thickness at 10 kPa	EN 9863-1	7.75 mm	6.75 mm
Straightness	EN 1848-2	conforming	-
Water vapour transmission (Sd)	EN 1931 EN ISO 12572	0.02 m	-
Maximum tensile force MD/CD	EN 12311-1	325 / 225 N/50 mm	-
Elongation MD/CD	EN 12311-1	45 / 70 %	-
Resistance to tearing MD/CD	EN 12310-1	185 / 195 N	-
Maximum tensile force MD/CD NET	EN 12311-1	-	1.3 / 0.5 kN/50 mm
Elongation MD/CD NET	EN 12311-1	-	95 / 65 %
Watertightness	EN 1928	class W1	-
Water column	EN 20811	> 250 cm	-
UV resistance *	EN 13859-1	3 months	3 months
Temperature resistance	-	-40 / +80 °C	-40 / +80 °C
Reaction to fire	EN 13501-1	class E	class E
Resistance to penetration of air	EN 12114	< 0.02 m ³ /m ² h50Pa	0 m ³ /m ² h50Pa
After ageing:			-
• maximum tensile force MD/CD	EN 13859-1	285 / 195 N/50 mm	-
• watertightness	EN 13859-1	class W1	-
• elongation MD/CD	EN 13859-1	35 / 30 %	-
Flexibility at low temperature	EN 1109	-30 °C	-
Dimensional stability	EN 1107-2	< 2 %	-
Thermal conductivity (λ)	-	0.3 W/mK	approx. 0.3 W/mK
Specific heat	-	1800 J/kgK	1800 J/kgK
Density	-	approx. 65 kg/m ³	approx. 35 kg/m ³
Water vapour resistance factor (μ)	-	approx. 33	-
Recommended installation pitch	-	> 5°	> 5°
Void ratio	-	95 %	95 %
Impact sound attenuation index ΔLw	UNI EN ISO 140-8:1999	28 (-3;+3) dB	28 (-3;+3) dB
Sound insulation power assessment index Rw	UNI EN ISO 10140-2:2010 UNI EN ISO 717-1:2013	approx. 1 dB	approx. 1 dB
Variation in global level of weighted sound intensity A from driving rain noise LiA	UNI EN ISO 140-18:2007	approx. 4 dB	approx. 4 dB
VOC emissions	-	< 0.02 % (class A+)	< 0.02 % (class A+)

* for more indications, see page 19

COMPOSITION

TRASPIR 3D COAT



- ① protective layer: non-woven PP fabric
- ② surface: 3D PP mat
- ③ top layer: non-woven PP fabric
- ④ reinforcing layer: PP breathable film
- ⑤ bottom layer: non-woven PP fabric

3D NET



3D PP mat

LABORATORY MEASUREMENT

Airborne acoustic insulation and noise generated by heavy rain

The test sample is identified by a 5.60x3.65m wooden roof positioned between an emitting room (photo 1) and a receiving room, able to emit and record the sound stress applied during the tests.

Shown here are the layers tested in the two versions: the first with the TRASPIR 3D COAT and the second with the sheet metal directly on the plank.



TESTS PERFORMED

The following measuring tests have been performed on both layers, with and without TRASPIR 3D COAT:

1. Airborne acoustic insulation according to EN ISO 10140-2:2010 and EN ISO 717-1:2013 on roof. The result is a soundproofing power index of R_w for the layer. Accordingly, the higher the value the better the acoustic insulation.

2. Noise generated by heavy rain according to EN ISO 140-18:2007: in this test you obtain a value indicating the sound pressure level L_{IA} recorded in the receiving room during the pounding of water, simulated by a tank placed over the sample.

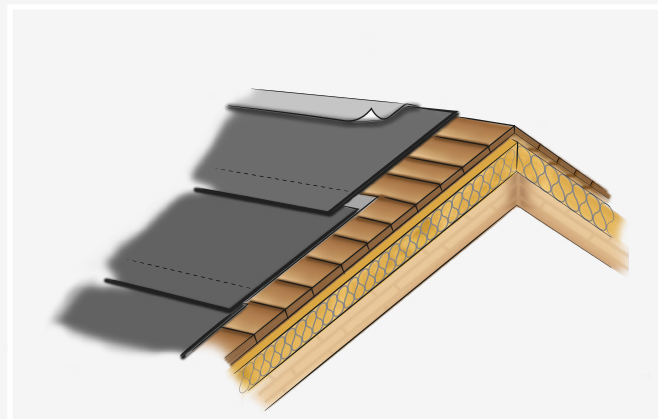
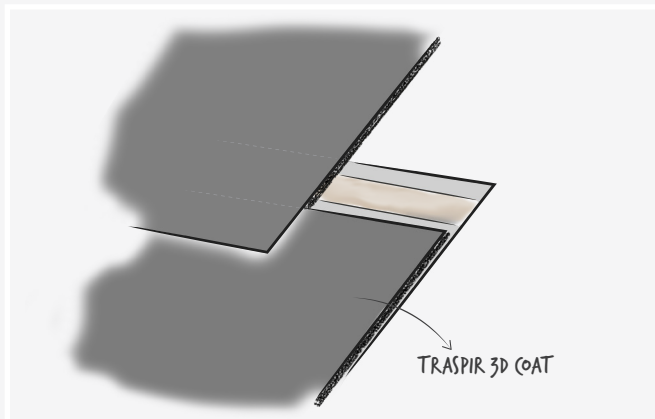


photo 1: Photo of sample, emitting chamber side

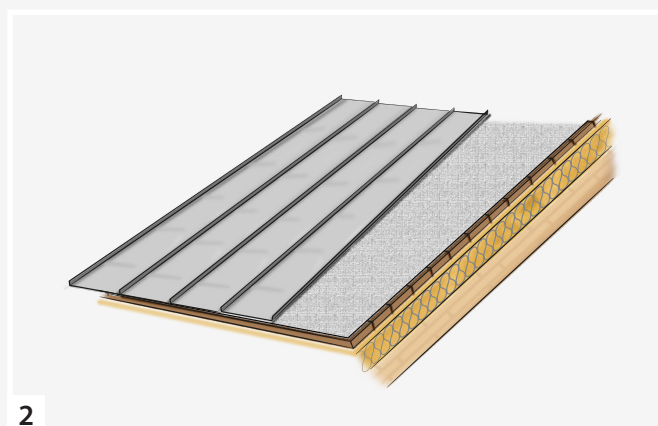
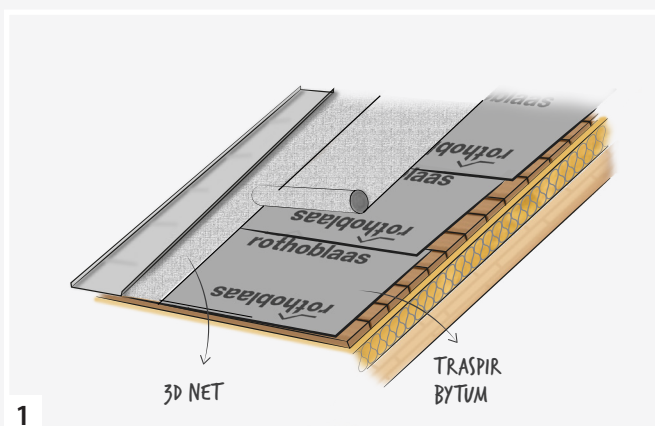
RESULTS	WITHOUT MEMBRANE	WITH MEMBRANE
① NOISE AIRBORNE	$R_w = 43$ dB	Increase of sound insulation by 1 dB $R_w = 44$ dB
② RAIN POURING	$L_{IA} = 36,9$ dB	Reduction of noise from rain up to 4.2 dB $L_{IA} = 32,7$ dB

NOTE: The full test report is available from the rothoblaas technical department

TRASPIR 3D COAT



3D NET



CHIMNEY DETAIL WITH 3D NET AND TRASPIR 3D COAT

