TRASPIR METAL

3D MATS FOR METAL ROOFS

ISTITUTO GIORDANO Qualità al Plurale

CE EN 13859-1

A	CH	D	F	I
Önorm B 4119 UD Typ I	SIA 232 UD (g)	ZVDH USB-A UDB-A	DTU 31.2 E1 Sd1 TR2 E600 Jf C1	UNI 11470 A/R2

AUS	USA
AS/NZS 4200.1 Class 4	IRC vp

CERTIFIED NOISE REDUCTION

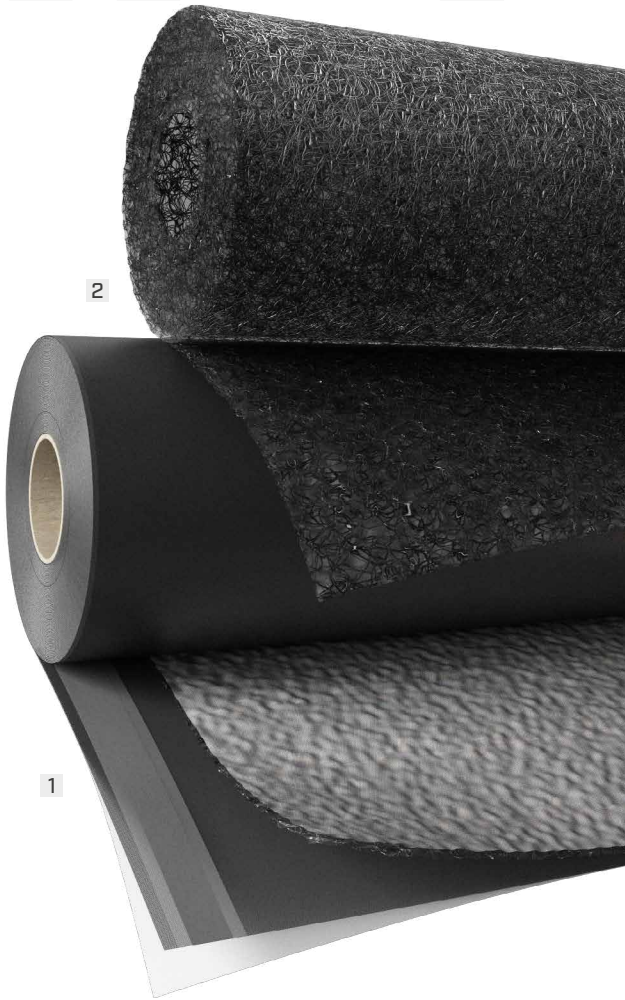
The 3D mats guarantee reduction of airborne and heavy rain noises. Values tested and certified.

PROTECTIVE FELT

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

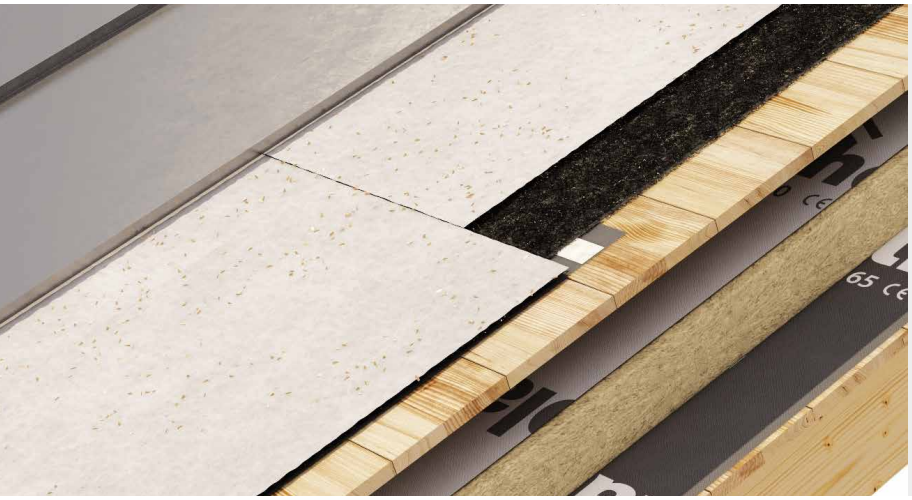
HIGH DENSITY 3D GRID

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



CODES AND DIMENSIONS

	CODE	description	tape	H [m]	L [m]	A [m²]	*H [ft]*	*L [ft]*	*A [ft²]*	
1	**TTTMET610**	TRASPIR 3D COAT TT	TT	1,35	33	44,55	*4.43*	*108.27*	*479.54*	4
2	**NET350**	NET 350	-	1,25	50	62,5	*4.11*	*164*	*672.75*	4



SAFE VENTILATION

The breathable membrane TRASPIR 3D COAT comes with a 3D grid and a protective felt on the surface, that prevents the entry of impurities and improves ventilation.

VERSATILE

Also ideal in combination with BYTUM or TRASPIR to create a micro-ventilation layer in both wall and roof installations.

LABORATORY MEASUREMENTS

The effectiveness of TRASPIR METAL was demonstrated through an airborne soundproofing test and noise generated by heavy rain.
The chosen construction assembly was tested with and without TRASPIR METAL (sheet metal directly on the board).

reduction of noise from heavy rain **up to 4 dB**

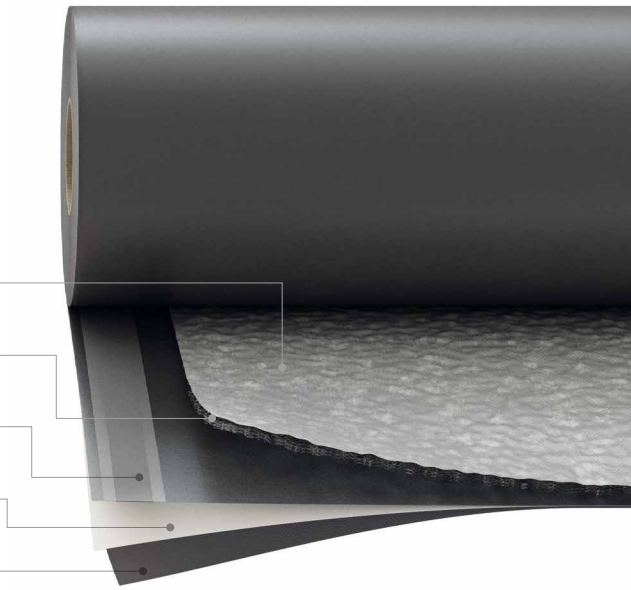
RESULTS	WITHOUT TRASPIR METAL		WITH TRASPIR METAL
AIRBORNE NOISE	$R_w = 43$ dB	Increase of sound insulation by 1 dB	$R_w = \mathbf{44}$ dB
HEAVY RAIN	$L_{IA} = 36{,}9$ dB	Reduction of noise from rain up to 4.2 dB	$L_{IA} = \mathbf{32{,}7}$ dB

RECOMMENDATIONS FOR INSTALLATION

TRASPIR 3D COAT

3D NET

TRASPIR 3D COAT TT



COMPOSITION

protection layer
non-woven PP fabric

middle layer
3-dimensional PP mat

protection layer
non-woven PP fabric

middle layer
PP breathable film

bottom layer
non-woven PP fabric

TECHNICAL DATA

Properties	standard	value	*USC conversion*
Mass per unit area	EN 1849-2	600 g/m^2	*1.97 oz/ft^2*
Thickness	EN 1849-2	8 mm	*0.315 in*
Water vapour transmission (Sd)	EN 1931	0,025 m	*139.86 US perm*
Tensile strength MD/CD	EN 12311-1	300 / 220 N/50mm	*34 / 25 lb/in*
Elongation MD/CD	EN 12311-1	> 35 / 50 %	-
Resistance to nail tearing MD/CD	EN 12310-1	150 / 175 N	*33.7 / 39.3 lbf*
Watertightness	EN 1928	class W1	-
Temperature resistance	-	-40 / 80 °C	*-40 / 176 °F*
Reaction to fire	EN 13501-1	class E	-
Resistance to penetration of air	EN 12114	< 0,02 m^3/(m^{2}h50Pa)	*< 0.001 cfm/ft^2 at 50Pa*
Thermal conductivity (λ)	-	0,3 W/(m·K)	*0.17 BTU/h·ft·°F*
Specific heat	-	1800 J/(kg·K)	-
Density	-	approx. 75 kg/m^3	*approx. 0.04 oz/in^3*
Water vapour resistance factor (μ)	-	approx. 33	*approx. 0.1 MNs/g*
VOC content	-	< 0,02 %	-
UV stability(1)	EN 13859-1/2	3 months	-
Exposure to weather(1)	-	2 weeks	-
Water column	ISO 811	> 250 cm	*> 98.4252 in*
After ageing:			
- watertightness	EN 1297 / EN 1928	class W1	-
- maximum tensile force MD/CD	EN 1297 / EN 12311-1	> 240 / 155 N/50mm	*27 / 22 lb/in*
- elongation	EN 1297 / EN 12311-1	> 30 / 40%	-
Flexibility at low temperatures	EN 1109	-40 °C	*-22 °F*
Void ratio	-	95 %	-
Variation of the sound reduction index ΔR_w	ISO 10140-2 / ISO 717-1	1 dB	-
Variation in overall A-weighted sound intensity level from heavy rain noiseΔL_{iA}	ISO 140-18	approx. 4 dB	-

(1) For the correlation between laboratory tests and actual conditions, see the catalogue "TAPES, SEALANTS AND MEMBRANES" at www.rothoblaas.com.

3D NET

COMPOSITION

3D grid
3-dimensional PP mat

TECHNICAL DATA

Properties	standard	value	*USC conversion*
Mass per unit area	EN 1849-2	350 g/m^2	*1.15 oz/ft^2*
Thickness	EN 1849-2	7.5 mm	*0.295 in*
Maximum tensile force MD/CD NET	EN 12311-1	1,3 / 0,5 N/50mm	*0.15 / 0.06 lb/in*
Elongation MD/CD NET	EN 12311-1	95 / 65 %	-
Temperature resistance	-	-40 / 80 °C	*-40 / 176 °F*
Reaction to fire	EN 13501-1	class F	-
Density	-	approx. 35 kg/m^3	*approx. 0.02 oz/in^3*
VOC emissions	-	< 0,02 %	-
UV stability(1)	EN 13859-1/2	3 months	-
Exposure to weather(1)	-	4 weeks	-
Void ratio	-	95 %	-
Variation of the sound reduction index ΔR_w	ISO 10140-2 / ISO 717-1	1 dB	-
Variation in overall A-weighted sound intensity level from heavy rain noiseΔL_{iA}	ISO 140-18	4 dB	-
Impact sound attenuation index ΔL_w	ISO 140-8	28 dB	-

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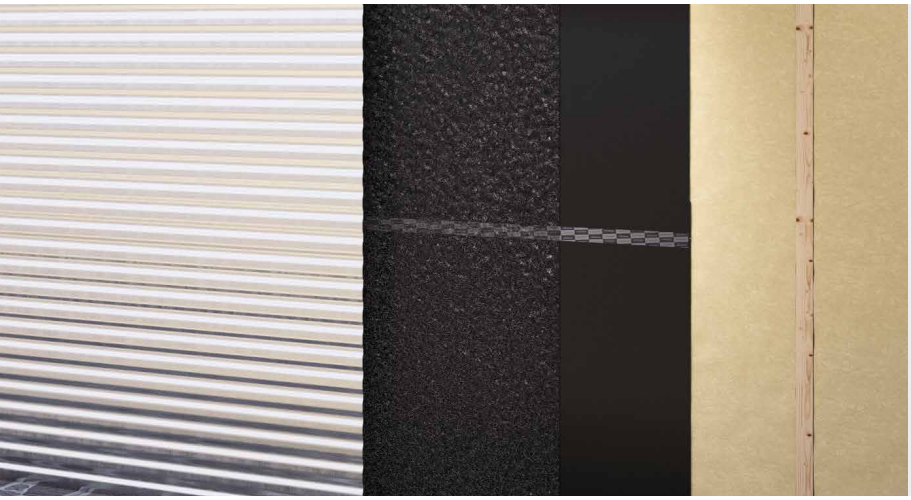

DURABILITY

When installed on a continuous support, it promotes micro-ventilation of metal roofs, preventing corrosion.