

SILENT FLOOR PUR

RESILIENT HIGH PERFORMANCE UNDERSCREED MEMBRANE MADE OF RECYCLED POLYMERS

CERTIFIED

The effectiveness of the underscreed membrane has been validated in several accredited laboratories in accordance with stringent European and international standards.

SUSTAINABILITY

Recycled and recyclable. The product intelligently reuses polyurethane from production waste that would otherwise have to be disposed of.

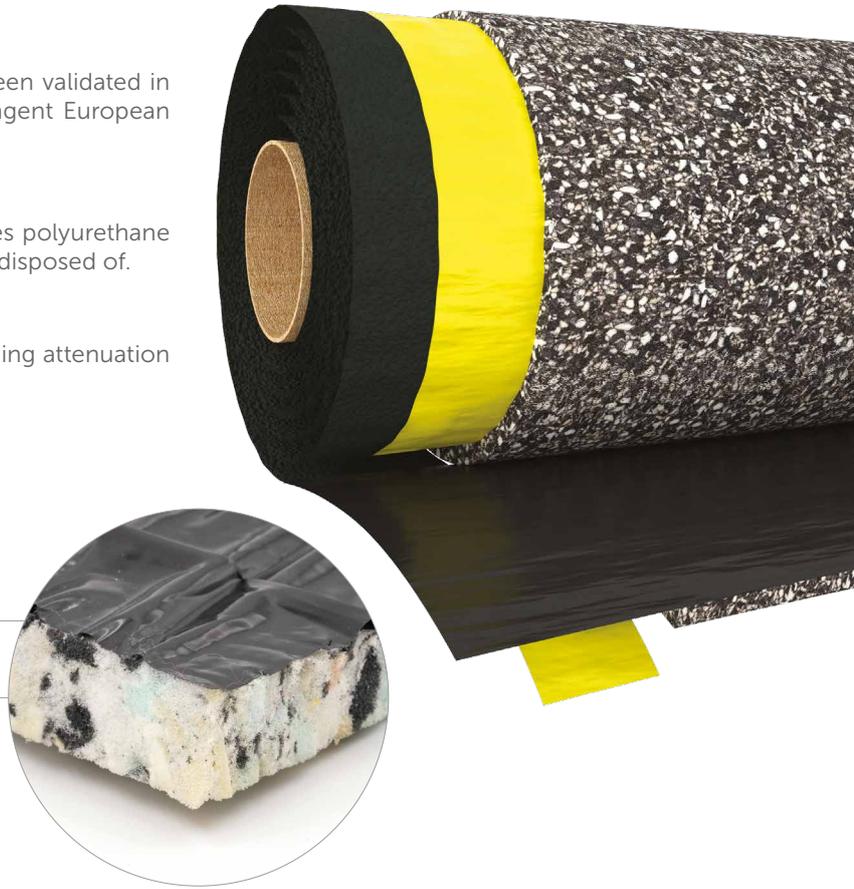
HIGH PERFORMANCE

The special composition offers excellent elasticity, reaching attenuation values over 30 dB.

COMPOSITION

polyethylene vapour barrier

polyurethane agglomerate made from pre-consumer industrial waste



CODES AND DIMENSIONS

CODE	H ⁽¹⁾ [m]	L [m]	thickness [mm]	A _f ⁽²⁾ [m ²]	
SILFLOORPUR10	1,6	10	10	15	6
SILFLOORPUR15	1,6	8	15	12	6
SILFLOORPUR20	1,6	6	20	9	6

⁽¹⁾1.5 m of polyurethane agglomerate and vapour barrier + 0.1 m of vapour barrier for overlap with integrated adhesive strip.

⁽²⁾Without considering the overlap area.



SAFE

Polyurethane is a noble polymer that maintains elasticity over time, without subsidence or changes in performance.

VOC REQUIREMENTS

The membrane composition safeguards health and meets the recommended VOC limits.

TECHNICAL DATA

SILENT FLOOR PUR - 10-15-20 mm thick

Properties	standard	value
Resistance to airflow r	ISO 9053	< 10,0 kPa·s·m ⁻²
Compressibility class	EN 12431	CP2
CREEP Viscous sliding under compression X_{ct} (1,5 kPa)	EN 1606	< 7.0%
Compression deformation stress	ISO 3386-1	17 kPa
Thermal conductivity λ	-	0,035 W/m·K
Specific heat c	-	1800 J/kg·K
Water vapour transmission Sd	-	> 100 m
Reaction to fire	EN 13501-1	class F
VOC emission classification	French decree no. 2011-321	A+

SILENT FLOOR PUR - 10 mm thick

Properties	standard	value
Surface mass m	-	1,10 kg/m ²
Density ρ	-	110 kg/m ³
Apparent dynamic stiffness s'_t	EN 29052-1	12,5 MN/m ³
Dynamic stiffness s'	EN 29052-1	12,5 MN/m ³
Theoretical estimate of impact sound pressure level attenuation ΔL_w ⁽¹⁾	ISO 12354-2	32,5 dB
System resonance frequency f_0 ⁽²⁾	ISO 12354-2	50,6 Hz
Impact sound pressure level attenuation ΔL_w ⁽³⁾	ISO 10140-3	21 dB
Thermal resistance R_t	-	0,46 m ² K/W

⁽¹⁾ $\Delta L_w = (13 \lg(m')) - (14,2 \lg(s')) + 20,8$ [dB] con $m' = 125 \text{ kg/m}^2$.

⁽²⁾ $f_0 = 160 \sqrt{(s'/m')}$ con $m' = 125 \text{ kg/m}^2$.

⁽³⁾Measured in the laboratory on 200 mm CLT floor. See the manual for more information on configuration.

SILENT FLOOR PUR - 15 mm thick

Properties	standard	value
Surface mass m	-	1,90 kg/m ²
Density ρ	-	126 kg/m ³
Apparent dynamic stiffness s'_t	EN 29052-1	8,8 MN/m ³
Dynamic stiffness s'	EN 29052-1	8,8 MN/m ³
Theoretical estimate of impact sound pressure level attenuation ΔL_w ⁽¹⁾	ISO 12354-2	34,6 dB
System resonance frequency f_0 ⁽²⁾	ISO 12354-2	42,5 Hz
Impact sound pressure level attenuation ΔL_w ⁽³⁾	ISO 10140-3	23 dB
Thermal resistance R_t	-	0,52 m ² K/W

⁽¹⁾ $\Delta L_w = (13 \lg(m')) - (14,2 \lg(s')) + 20,8$ [dB] con $m' = 125 \text{ kg/m}^2$.

⁽²⁾ $f_0 = 160 \sqrt{(s'/m')}$ con $m' = 125 \text{ kg/m}^2$.

⁽³⁾Measured in the laboratory on 200 mm CLT floor. See the manual for more information on configuration.

SILENT FLOOR PUR - 20 mm thick

Properties	standard	value
Surface mass m	-	2,20 kg/m ²
Density ρ	-	110 kg/m ³
Apparent dynamic stiffness s'_t	EN 29052-1	7,4 MN/m ³
Dynamic stiffness s'	EN 29052-1	7,4 MN/m ³
Theoretical estimate of impact sound pressure level attenuation ΔL_w ⁽¹⁾	ISO 12354-2	35,7 dB
System resonance frequency f_0 ⁽²⁾	ISO 12354-2	38,9 Hz
Impact sound pressure level attenuation ΔL_w ⁽³⁾	ISO 10140-3	25 dB
Thermal resistance R_t	-	0,92 m ² K/W

⁽¹⁾ $\Delta L_w = (13 \lg(m')) - (14,2 \lg(s')) + 20,8$ [dB] con $m' = 125 \text{ kg/m}^2$.

⁽²⁾ $f_0 = 160 \sqrt{(s'/m')}$ con $m' = 125 \text{ kg/m}^2$.

⁽³⁾Measured in the laboratory on 200 mm CLT floor. See the manual for more information on configuration.

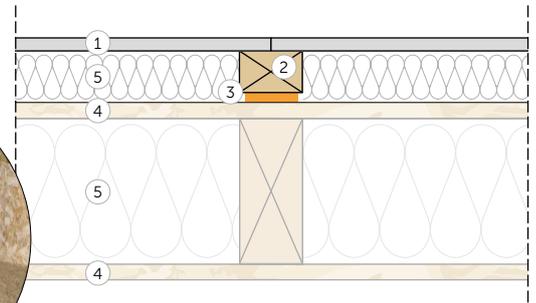
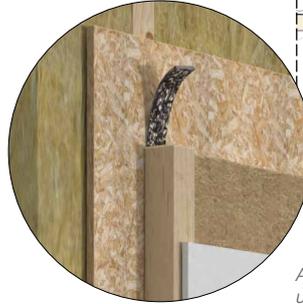


SILENT FLOOR PUR | Tests performed

SOUND REDUCTION LEVEL MEASUREMENTS

Tests carried out in the **Building Envelope Lab** of the **Free University of Bozen/Bolzano** in accordance with EN ISO 10140-2 have made it possible measured the impact noise level of the construction assembly described below:

- ① plasterboard panel
- ② timber battens
- ③ strips of **SILENT FLOOR PUR** (t: 10 mm)
- ④ OSB
- ⑤ insulation material such as mineral wool



Add the supporting wall to the base frame and decouple it using strips of SILENT FLOOR PUR.

graphs and frequency values available

See the manual for more information on configuration

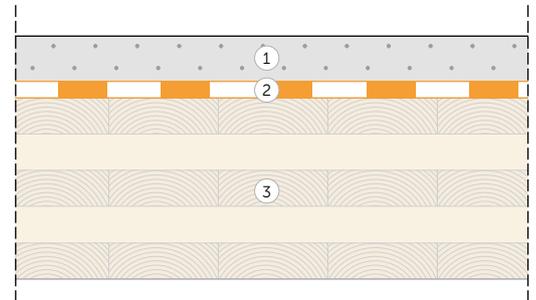
$$\Delta R_w = + 6 \text{ dB}$$

$$\Delta STC = + 7$$

IMPACT NOISE LEVEL MEASUREMENTS

Tests carried out in the **Building Envelope Lab** of the **Free University of Bozen/Bolzano** in accordance with EN ISO 10140-3 measured the impact noise level of the construction assembly described below:

- ① concrete slab (t: 50 mm)
- ② **SILENT FLOOR PUR** (t: 20 mm)
- ③ CLT panel (t: 200 mm)



Thanks to the addition of the floating screed system on the raw CLT.

graphs and frequency values available

See the manual for more information on configuration

$$\Delta L_{n,w} = - 25 \text{ dB}$$

$$\Delta IIC = + 25$$

Use the QR-code to download the complete manual!

www.rothoblaas.com

