

# SILENT FLOOR PE

RESILIENT UNDERSCREED MEMBRANE MADE OF CLOSED CELL PE

## CLOSED CELL

Thanks to the grid of closed cell polyethylene, the foil will not permanently deform and remains effective over time.

## COST-PERFORMANCE

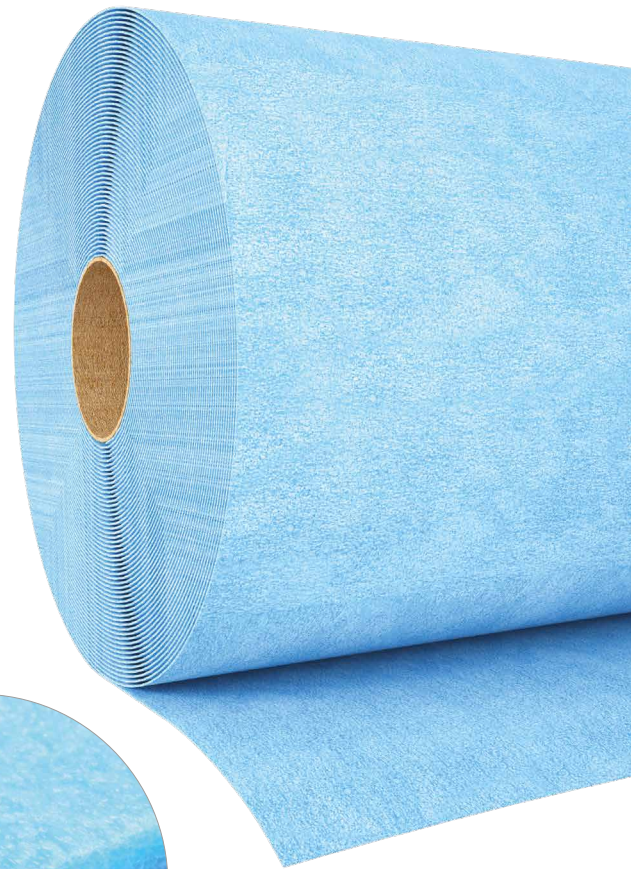
Composition of the mixture optimised to provide both good performance and low cost.

## VERSATILE


This product is a versatile solution in any application where a light and flexible resilient product is required.

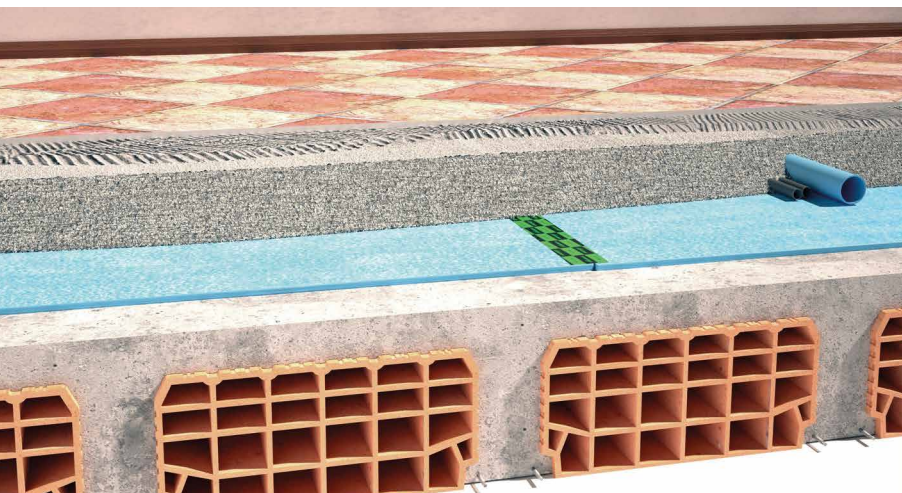
## COMPOSITION

closed cell expanded polyethylene



## CODES AND DIMENSIONS

CODE	H	L	thickness	A	H	L	thickness	A	
	[m]	[m]	[mm]	[m <sup>2</sup> ]	[ft]	[ft]	[in]	[ft <sup>2</sup> ]	
SILFLOORPE6	1,55	50	5	77,5	5' 1"	164' 1/2"	0.20	834	4
SILFLOORPE10	1,30	50	10	65	4' 3 1/8"	164' 1/2"	0.39	700	2



## SEVERAL USES

The format and composition offer various uses in the construction field, also as under floor.

## STABLE

The grid of polyethylene foam is durable and does not suffer from issues associated with chemical actions or incompatibility of materials.

## TECHNICAL DATA

### SILENT FLOOR PE - 5-10 mm thick

Properties	standard	value	USC conversion
Density $\rho$	-	30 kg/m <sup>3</sup>	1.9 lb/ft <sup>3</sup>
Resistance to airflow $r$	ISO 9053	> 100.0 kPa·s·m <sup>-2</sup>	-
Thermal conductivity $\lambda$	-	0,038 W/m·K	0.022 BTU/(h·ft <sup>2</sup> ·°F)
VOC emission classification	French decree no. 2011-321	A+	-

### SILENT FLOOR PE - 5 mm thick

Properties	standard	value	USC conversion
Thickness	-	5 mm	ca. 0.20 in
Surface mass $m$	-	0,15 kg/m <sup>2</sup>	0.03 lb/sft
Apparent dynamic stiffness $s'_t$	EN 29052-1	43 MN/m <sup>3</sup>	-
Dynamic stiffness $s'$	EN 29052-1	43 MN/m <sup>3</sup>	-
Theoretical estimate of impact sound pressure level attenuation $\Delta L_W^{(1)}$	ISO 12354-2	24,9 dB	-
System resonance frequency $f_0^{(2)}$	ISO 12354-2	93,8 Hz	-
Impact sound pressure level attenuation $\Delta L_W^{(3)}$	ISO 10140-3	19 dB	-
Thermal resistance $R_t$	-	0,13 m <sup>2</sup> K/W	-
Water vapour transmission $S_d$	-	24,1 m	-
Water vapour resistance factor $\mu$	EN 12086	5000	125 MN·s/g

### SILENT FLOOR PE - 10 mm thick

Properties	standard	value	USC conversion
Thickness	-	10 mm	ca. 0.39 in
Surface mass $m$	-	0,30 kg/m <sup>2</sup>	0.06 lb/sft
Apparent dynamic stiffness $s'_t$	EN 29052-1	41 MN/m <sup>3</sup>	-
Dynamic stiffness $s'$	EN 29052-1	41 MN/m <sup>3</sup>	-
Theoretical estimate of impact sound pressure level attenuation $\Delta L_W^{(1)}$	ISO 12354-2	25,2 dB	-
System resonance frequency $f_0^{(2)}$	ISO 12354-2	91,6 Hz	-
Impact sound pressure level attenuation $\Delta L_W^{(3)}$	ISO 10140-3	-	-
Thermal resistance $R_t$	-	0,26 m <sup>2</sup> K/W	-
Water vapour transmission $S_d$	-	48,2 m	-
Water vapour resistance factor $\mu$	EN 12086	5000	250 MN·s/g

(1)  $\Delta L_W = (13 \lg(m')) - (14,2 \lg(s')) + 20,8$  [dB] with  $m' = 125 \text{ kg/m}^2$  (25.60 lb/sft).

(2)  $f_0 = 160 \sqrt{(s'/m')}$  with  $m' = 125 \text{ kg/m}^2$  (25.60 lb/sft).

(3) Measured in the laboratory on 200 mm (7 7/8") CLT floor. See the manual for more information on configuration.

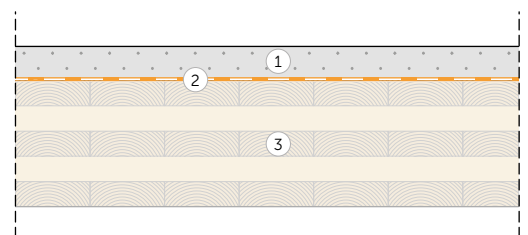
## IMPACT NOISE LEVEL MEASUREMENTS

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 (s: 50 mm - 2.0 in)
- ② **SILENT FLOOR PE** (s: 5 mm - 0.2 in)
- ③ CLT panel (s: 200 mm - 8.0 in)

**- 19 dB**

compared to the basic configuration



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

$$L_{n,w} = -19 \text{ dB}$$

$$IIC_{ASTM} = +19 \text{ dB}$$

Use the QR-code to download the complete manual!

[www.rothoblaas.com](http://www.rothoblaas.com)

