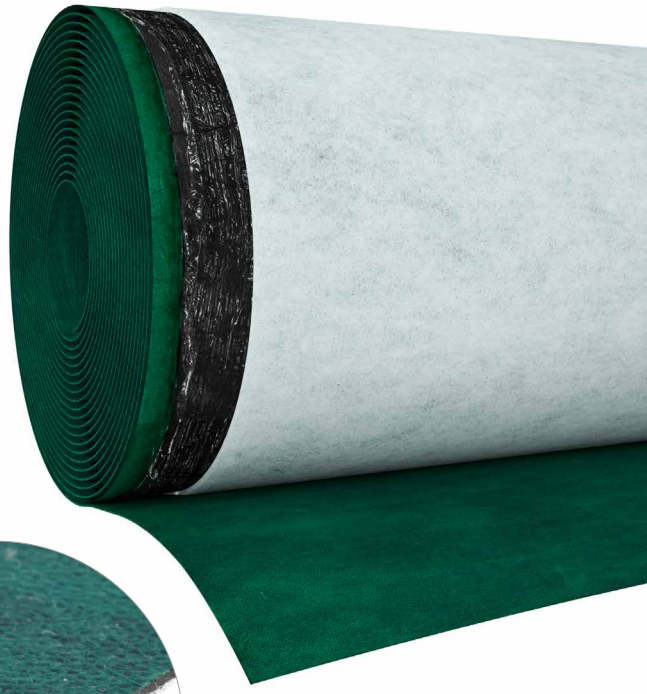
SILENT FLOOR BYTUM

RESILIENT UNDERSCREED MEMBRANE MADE OF BITUMEN AND POLYESTER FELT



TESTED EFFECTIVENESS
The special structure absorbs vibrations from impact noise up to 20 dB.

STRUCTURAL RESTORATION
The material and special structure of the product make it extremely safe even in applications in historic or valuable buildings, as it prevents the screed from percolating in applications with timber and concrete connectors.

HERMETIC
Thanks to the bituminous mixture the membrane tends to close around the fastening system, ensuring watertightness.

COMPOSITION

elastoplastomeric bitumen waterproofing membrane

polyester fibre felt made from post-consumer waste

CODES AND DIMENSIONS

CODE	H(1)	L	thickness	A_f(2)	
	[m]	[m]	[mm]	[m²]	
SILFLOORBYT5	1,05	10	5	10	20

(1)1 m bituminous membrane with felt + 0.05 m bitumen membrane for overlap.
(2)Without considering the overlap area.

DURABLE
Stable over time, thanks to the bituminous mixture. Also highly compatible with fresh concrete.

TIMBER-TO-CONCRETE
Ideal in combination with CTC connectors. Stiffness values also calculated in the presence of vapour barrier sheet or soundproofing layer.

TECHNICAL DATA

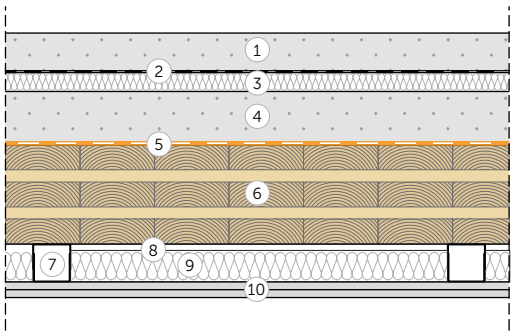
Properties	standard	value
Thickness	-	approx. 5 mm
Surface mass m	-	1.2 kg/m^2
Density ρ	-	240 kg/m^3
Resistance to airflow r	ISO 9053	> 100.0 kPa·s·m^{-2}
Apparent dynamic stiffness s'$_t$	EN 29052-1	7 MN/m^3
Double layer apparent dynamic stiffness(1) s'$_t$	EN 29052-1	4 MN/m^3
Dynamic stiffness s'	EN 29052-1	27 MN/m^3
Double layer dynamic stiffness(1) s'	EN 29052-1	14,5 MN/m^3
Compressibility class	EN 12431	CP2 (≤ 2 mm)
Double layer compressibility class(1)	EN 12431	CP3 (≤ 3 mm)
CREEP Viscous sliding under compression X_{ct} (2 kPa)	EN 1606	≤ 1 mm
CREEP Viscous sliding under compression double layer(1) X_{ct} (2 kPa)	EN 1606	≤ 1 mm
Theoretical estimate of the impact sound pressure level attenuation ΔL_w(2)	ISO 12354-2	27,7 dB
System resonance frequency f_0(3)	ISO 12354-2	74,4 Hz
Impact sound pressure level attenuation ΔL_w(4)	ISO 10140-3	20 dB
Theoretical estimate of the impact sound pressure level attenuation ΔLw(2) double layer	ISO 12354-2	31.6 dB
System resonance frequency f0(3) double layer	ISO 12354-2	54.5 Hz
Thermal resistance R_t	ISO 6946	0,13 m^{2}K/W
Thermal conductivity λ (bituminous membrane - white felt)	-	0.045 - 0.17 W/(m·K)
Specific heat c	-	1,3 kJ/kg·K
Water vapour resistance factor μ	EN 12086	100000
Water vapour transmission Sd	-	> 70 m

(1)With opposing white felts. | (2)ΔL_w= (13 lg(m'))-(14.2 lg(s'))+20.8 [dB] with m'= 125 kg/m^2. | (3)f_0= 160 √(s'/m') with m'= 125 kg/m^2. | (4)Measured in the laboratory on 200 mm CLT floor. See the manual for more information on configuration.

SOUND REDUCTION INDEX LEVEL AND IMPACT NOISE LEVEL MEASUREMENTS

Tests carried out in the **Akustik Center Austria** laboratories of the **Holzforschung Austria** association in accordance with EN ISO 10140-2 and EN ISO 10140-3 made it possible to measure the soundproofing and impact noise level of the construction assembly described below:

1. concrete screed (s: 60 mm - *2.4 in*)
2. BARRIER 100
3. mineral wool insulation (s: 30 mm - *1.2 in*)
4. compacted gravel fill with cement (s: 80 mm - *3.2 in*)
5. **SILENT FLOOR BYTUM** (s: 5 mm - *0.2 in*)
6. CLT (s: 160 mm - *6.4 in*)
7. metal structure for plasterboard
8. air chamber (s: 10 mm - *0.39 in*)
9. low density mineral wool insulation (s: 50 mm - *2.0 in*)
10. 2 plasterboard panels (s: 25 mm - *1.0 in*)



graphs and frequency values available

$L_{n,w}(Cl)$ = **42 (0) dB**

IIC_{ASTM} = **42**

$R_w(C;C_{tr})$ = **60 (-1;-4) dB**

STC_{ASTM} = **59**

See the manual for more information on configuration.

Use the QR-code to download the complete manual!
www.rothoblaas.com