

# SILENT WALL BYTUM

## SOUNDPROOFING AND WATERPROOFING BITUMINOUS MEMBRANE

### TESTED

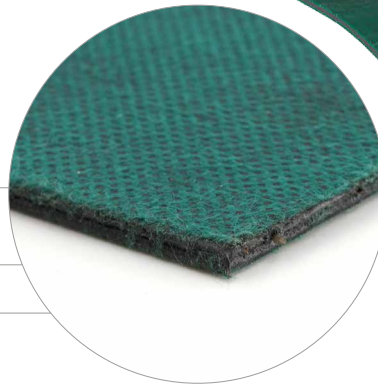
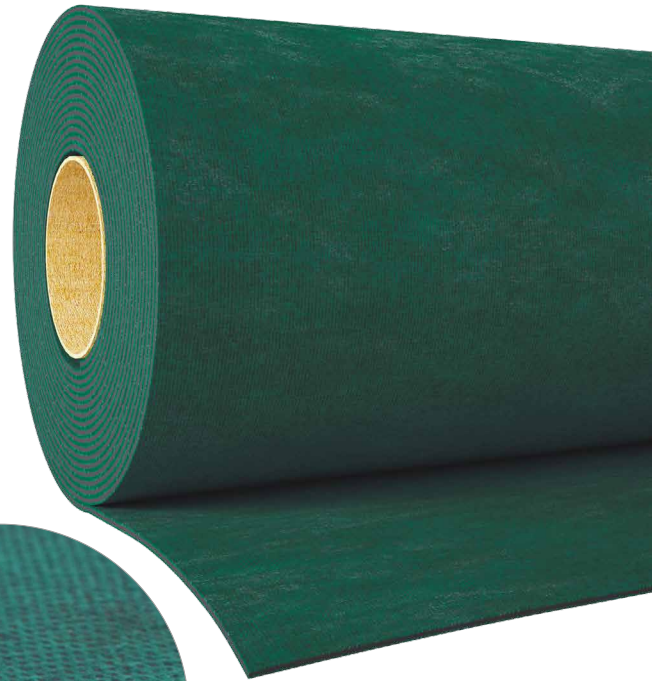
Thanks to its high surface mass (6 kg/m<sup>2</sup>), excellent reduction of airborne noise transmission can be achieved with minimal thicknesses. Also tested at the University of Bolzano.

### PRACTICAL

Mechanical fastening allows the membrane to be applied to any surface, compensating for irregularities.

### COST-PERFORMANCE

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




### COMPOSITION

non-woven polypropylene fabric

waterproofing membrane made of elastoplastomeric bitumen

non-woven polypropylene fabric

### CODES AND DIMENSIONS

| CODE    | H   | L   | thickness | surface mass         | A                 | H         | L          | thickness | surface mass | A                  |  |
|---------|-----|-----|-----------|----------------------|-------------------|-----------|------------|-----------|--------------|--------------------|---|
|         | [m] | [m] | [mm]      | [kg/m <sup>2</sup> ] | [m <sup>2</sup> ] | [ft]      | [ft]       | [in]      | [lb/sft]     | [ft <sup>2</sup> ] |   |
| SILWALL | 1,2 | 5   | 4,2       | 6                    | 6                 | 3' 3 3/8" | 16' 4 7/8" | 0.17      | 1.23         | 65                 | 30  |



### VERSATILE

For any application where an increase in mass is required.

### SAFE

Made of elastoplastomeric bitumen, covered on both sides with a polypropylene non-woven fabric. Does not contain harmful substances.

## TECHNICAL DATA

| Properties   | standard    | value                       | USC conversion                    |
|--|-------------|-----------------------------|-----------------------------------|
| Thickness  | -           | 4,2 mm                      | 0.17 in                           |
| Surface mass m   | -           | 6 kg/m <sup>2</sup>         | 1.23 lb/ft <sup>2</sup>           |
| Density ρ  | -           | 1500 kg/m <sup>3</sup>      | 93.64 lb/ft <sup>3</sup>          |
| Resistance to airflow r  | ISO 9053    | > 100 kPa·s·m <sup>-2</sup> | -                                 |
| Compressibility class  | EN 12431    | class CP2                   | -                                 |
| CREEP viscous sliding under compression (1.6 kPa - 33.4 psf)     | EN 1606     | 0,5 %                       | -                                 |
| Increase of sound reduction index ΔR <sub>w</sub> <sup>(1)</sup> | ISO 10140-2 | 4 dB                        | -                                 |
| Vibration damping - loss factor η (200 Hz)                       | ASTM E756   | 0,25                        | -                                 |
| Thermal resistance R <sub>t</sub>                                | -           | 0,1 m <sup>2</sup> K/W      | -                                 |
| Thermal conductivity λ   | -           | 0,7 W/m·K                   | 0.404 BTU/(h·ft <sup>2</sup> ·°F) |
| Specific heat c  | -           | 900 J/kg·K                  | 0.22 BTU/(lb·°F)                  |
| Water vapour resistance factor μ                                 | EN 12086    | 20000                       | 420 MN·s/g                        |
| Water vapour transmission Sd                                     | -           | 80 m                        | 0.043 US perm                     |
| Reaction to fire   | EN 13501-1  | class E                     | -                                 |

<sup>(1)</sup>Measured in the laboratory on a 170 mm (6 3/4") timber-framed wall. See the manual for more information on configuration.

## ✓ SOUND REDUCTION INDEX 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 to measure the impact noise level of the construction assembly described below:

### BASIC CONFIGURATION:

- ① timber frame structure (s: 170 mm - 6.7 in)
- ② plasterboard panel (s: 12,5 mm - 0.5 in)

$$R_w = 48 \text{ dB}$$

$$STC_{ASTM} = 48$$

### CONFIGURATION 1:

- ① timber frame structure (s: 170 mm - 6.7 in)
- ② 2x plasterboard panel (s: 12,5 mm - 0.5 in)

$$R_w = 52 \text{ dB}$$

$$STC_{ASTM} = 53$$

+2,5 cm

$$\Delta R_w = +4 \text{ dB}$$

### CONFIGURATION 2:

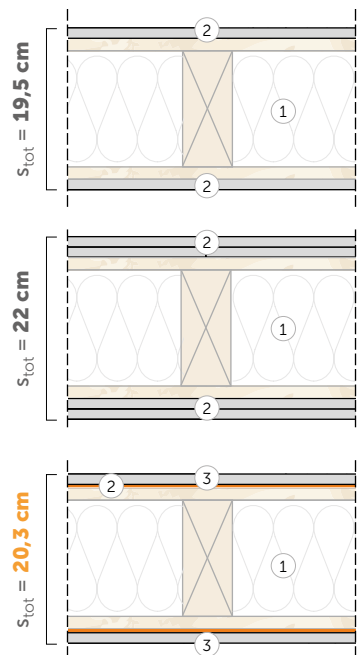
- ① timber frame structure (s: 170 mm - 0.5 in)
- ② **SILENT WALL BYTUM** (s: 4,2 mm - 0.17 in)
- ③ plasterboard panel (s: 12,5 mm - 0.5 in)

$$R_w = 53 \text{ dB}$$

$$STC_{ASTM} = 50$$

+0,8 cm

$$\Delta R_w = +5 \text{ dB}$$



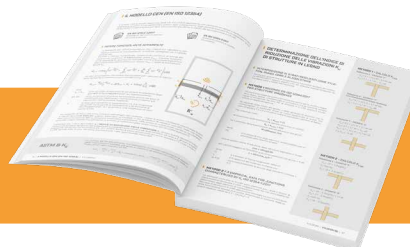
By using SILENT WALL BYTUM you can save space and achieve better results.

**graphs and frequency values available**

See the manual for more information on configuration

Use the QR-code to download the complete manual!

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



# SILENT WALL | Recommendations for installation

## SILENT WALL BYTUM SA



## SILENT WALL BYTUM

