





# **AESSE 2200 ALU**

#### **IMPACT SOUND NOISES INSULATION MAT**

Impact sound noises insulation mat made of thermally bound polyester fibres coming from the recycling of PET bottles, coupled on one side with a bituminous membrane. The rolls have a 5 cm. lateral adhesive selvedge to improve the application. The polyester main characteristics give the product a very good behaviour even as thermal insulator. AESSE 2200 does not give any handling problems and does not release any dangerous substances. The product is resistant to moulds and rodents, UVA and UVB rays and atmospheric agents.

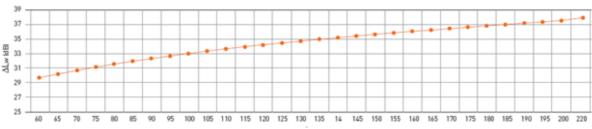
#### **ACOUSTIC PERFORMANCES**

| DESCRIPTION                          | SYMBOL                     | M.U.     | VALUE | NORMS          | NOTES                               |
|--------------------------------------|----------------------------|----------|-------|----------------|-------------------------------------|
| Apparent dynamic rigidity            | (s')                       | MN/m³    | 10    | UNI EN 29052-1 | Cert.n° 095-09-acu DS               |
|                                      |                            |          |       |                |                                     |
| Resonance frequency                  | (f <sub>0</sub> )          | Hz       | 36    | UNI EN 29052-1 | Cert.n° 095-09-acu DS               |
|                                      |                            |          |       |                |                                     |
| Air flow resistance                  |                            | kPa*s/m² | >100  | UNI EN 29053   | Cert.n°<br>1190.11UN0010/12         |
|                                      |                            |          |       |                |                                     |
| Impact sound noise attenuation level | <b>(</b> ∆L <sub>w</sub> ) | dB       | 34    | UNI EN 12354-2 | Screed weight 115 Kg/m <sup>2</sup> |
|                                      |                            |          |       |                |                                     |

#### ATTENUATION RATING INDEX OF IMPACT SOUND NOISE PRESSURE LEVEL **ACCORDING TO UNI EN 12354-2**

| m'                | 60   | 65   | 70   | 75   | 80   | 85   | 90   | 95   | 100  | 105  | 110  | 115  | 120  | 100  | 120  | 125  | 140  | 1/5  | 150  | 155  | 160  | 145  | 170  | 175  | 180  | 105  | 190  | 105  | 200  | 220  |
|-------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| kg/m <sup>2</sup> | 00   | 00   | 70   | /5   | 80   | 80   | 70   | 70   | 100  | 105  | 110  | 115  | 120  | 125  | 130  | 133  | 140  | 145  | 130  | 155  | 100  | 100  | 170  | 1/3  | 100  | 100  | 170  | 173  | 200  | 220  |
| ΔLw               | 20.7 | 20.2 | 20.7 | 21.1 | 21 5 | 21.0 | 22.2 | 22.7 | 22.0 | 22.2 | 22.4 | 22.0 | 2/2  | 24.5 | 24.7 | 2E U | 25.2 | 25.4 | 25.4 | 25.0 | 36,1 | 24.2 | 24 E | 24.4 | 24.0 | 27.0 | 27.2 | 27 / | 27 5 | 20 1 |
| dB                | 27,1 | 30,2 | 30,7 | 31,1 | 31,3 | 31,7 | 32,3 | 32,7 | 33,0 | 33,3 | 33,0 | 33,7 | 34,2 | 34,3 | 34,7 | 35,0 | 33,2 | 33,4 | 33,0 | 30,7 | 30,1 | 30,3 | 30,3 | 30,0 | 30,0 | 37,0 | 37,2 | 37,4 | 37,3 | 30,1 |

# **ALW VARIATION IN RELATION TO SCREED WEIGHT**



Screed surface mass m' (kg/m²)





















#### **THERMAL PERFORMANCES**

| DESCRIPTION          | SYMBOL | M.U.               | VALUE  | NORMS             | NOTES                 |
|----------------------|--------|--------------------|--------|-------------------|-----------------------|
| Thermal conductivity | (λ)    | W/mK               | 0,0431 | UNI EN 12667:2002 | Cert.n° 035-09-the TR |
|                      |        |                    |        |                   |                       |
| Thermal resistance   | (R)    | m² K/W             | 0,1647 | UNI EN 12667:2002 | Calculated Value      |
|                      |        |                    |        |                   |                       |
| Thermal transmission | (U)    | W/m <sup>2</sup> K | 6,0716 | UNI EN 12667:2002 | Calculated Value      |
|                      |        |                    |        |                   |                       |

## **PHYSICAL-MECHANICAL PERFORMANCES**

| DESCRIPTION                | M.U.              | VALUE | TOLERANCES |
|----------------------------|-------------------|-------|------------|
| Bituminous layer density   | Kg/m <sup>3</sup> | 1620  | ±5%        |
|                            |                   |       |            |
| Bituminous layer thickness | mm                | 1,5   | ± 5 %      |
|                            |                   |       |            |
| Polyester fibre density    | Kg/m <sup>3</sup> | 30/50 | ± 5 %      |
|                            |                   |       |            |
| Polyester fibre thickness  | mm                | 6     | ± 10 %     |
|                            |                   |       |            |
| Total thickness            | mm                | 7,5   | ± 5 %      |
|                            |                   |       |            |

| DESCRIPTION                    | M.U.   | BITUMINOUS<br>LAYER VALUE      | POLYESTER<br>Value | NORMS               |
|--------------------------------|--------|--------------------------------|--------------------|---------------------|
| Elongation percentage at break | %      | Long: > 2.5*<br>Transv: > 2.5* |                    | *EN 12311-1         |
|                                |        |                                |                    |                     |
| Resistance to tensile strength | N/5 cm | Long: > 500*<br>Transv: > 280* |                    | *EN 12311-1         |
|                                |        |                                |                    |                     |
| Heat resistance                | °C     |                                | Up to + 120        |                     |
|                                |        |                                |                    |                     |
| Cold resistance                | °C     |                                | Up to -40          |                     |
|                                |        |                                |                    |                     |
| Fire rating                    |        | Bfl                            | - s1               | UNI EN 13501-1:2019 |
|                                |        |                                |                    |                     |

| DESCRIPTION                | SIYMBOL           | M.U. | VALUE | NORMS        | NOTES                       |
|----------------------------|-------------------|------|-------|--------------|-----------------------------|
| Deformation to compression | (d <sub>L</sub> ) | mm   | 5,2   | UNI EN 12431 | Cert.n°<br>1190.11UN0050/12 |
|                            |                   |      |       |              |                             |
| Deformation to compression | (d <sub>F</sub> ) | mm   | 4,6   | UNI EN 12431 | Cert.n°<br>1190.11UN0050/12 |
|                            |                   |      |       |              |                             |
| Deformation to compression | (d <sub>B</sub> ) | mm   | 3,3   | UNI EN 12431 | Cert.n°<br>1190.11UN0050/12 |



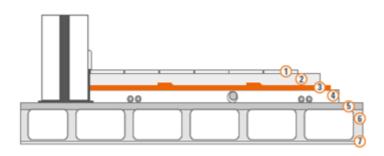






#### **CHEMICAL PERFORMANCES**

| CHARACTERISTIC               | PERFORMANCES   |
|------------------------------|--|
| Chemical interactions        | Highly resistant to acids and alkaline detergents, retains its characteristics unchanged over time |
|                              |  |
| Electrostatic                | Does not accumulate static charge and prevent interaction between materials                        |
|                              |  |
| Environmental sustainability | 100 % recyclable   |
|                              |  |



floor over a suitable elastic-resilient rester fibre coming from the recycling ving made the lightweight screed for on rating index to impact sound noise e frequency of 36 Hz such as AESSE



- 1) Finishing
- Lodging screed AESSE 2200
- 3)
- Lightened screed
- 5) Concrete layer
- 6) Floor
- Plaster

After the installation of the fixtures and the levelling with lightened screed, before the lodging screed.

#### APPLICATION METHOD

- Decouple at the base all the vertical partitions (walls) with wall cut band ISOLBAND
- Decouple from the walls the lightened screed with AEFLEX band.
- 3 Lay over the lightened screed the acoustic insulation product AESSE 2200 on the entire floor closer as much
- as possible to the walls. Seal the junctions between the mats by overlapping the selvages of rolls edges. Carry out the complete decoupling of the floating screed from the perimeter vertical partitions applying the 4 self-adhesive band AEFLEX between AESSE 2200 and the wall carrying out all the overlaps.









## **DIMENSIONS AND PACKAGING**

| SIZE                       | M.U.           | VALUE          |
|----------------------------|----------------|----------------|
| Thickness                  | mm             | 7,5            |
|                            |                |                |
| Roll height                | m              | 1,05           |
|                            |                |                |
| Roll length                | m              | 10             |
|                            |                |                |
| Weight per m <sup>2</sup>  | Kg/m²          | 2,55           |
|                            |                |                |
| Number of rolls per pallet | piece          | 20             |
|                            |                |                |
| Total area per pallet      | m <sup>2</sup> | 210            |
|                            |                |                |
| Pallet dimension           | cm             | 120x120x105+10 |

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