

## TECHNICAL DATA SHEET

### Wall insulation Panels 3, 6 and 9mm



#### Material

Extruded Polystyrene foamsheets with flame retardant.

Colour: White

#### Fire regulations

B2 according to DIN 4102-1 MPA test certificate Nr. 23007514

Classement M1 according to NFP 92-512 SNPE test certificate Nr. 14307-08

| Symbol | Insulation Panel G3 | Insulation Panel G6 | Insulation Panel G9 | Unit | Test method |
|--------|---------------------|---------------------|---------------------|------|-------------|
|--------|---------------------|---------------------|---------------------|------|-------------|

#### Dimensional properties

|                          | s         | 3  | 6  | 9  | mm                | EN 22286   |
|--------------------------|-----------|--|--|--|-------------------|------------|
| Thickness                |           | Thickness from center to border max. 0,3mm     | Thickness from center to border max. 0,6mm     | Thickness from center to border max. 0,6mm     |                   |            |
| within one sheet         | Tolerance | +/- 0,3  | +/- 0,6  | +/-0,6   |                   |            |
| total                    |           |  |  |  |                   |            |
| Sheet dimensions (L x W) | Tolerance | 1250 x 800<br>L : -2,5/+5 mm;<br>W:-2,0/+1,0mm | 1250 x 800<br>L : -2,5/+5 mm;<br>W:-2,0/+1,0mm | 1250 x 800<br>L : -2,5/+5 mm;<br>W:-2,0/+1,0mm | mm                | -          |
| Foam density             | $\rho_s$  | 40   | 33   | 35   | kg/m <sup>3</sup> | EN ISO 845 |

#### Thermal properties

|   |              |           |           |           |                       |                          |
|---|--------------|-----------|-----------|-----------|-----------------------|--------------------------|
| Thermal conductivity (measured)                       | $\lambda$    | 0,0297    | 0,0306    | 0,0307    | W/mK                  | DIN 52612 tl.1           |
| Heat transfer coefficient (U-value)                   | k            | 9,9       | 5,1       | 3,4       | W/m <sup>2</sup> K    |                          |
| Thermal resistance                                    | R (oder 1/λ) | 0,101     | 0,1961    | 0,293     | m <sup>2</sup> K/W    |                          |
| Thermal conductivity of the composite*                |              | 83%       | 70%       | 62 %      | %                     |                          |
| Reduction of thermal conductivity by insulation tile* |              | 17%       | 30%       | 38 %      | %                     | ≙Energy savings capacity |
| Thermal effusivity                                    | b            | 2,7       | 2,4       | 2,4       | kJ/m <sup>2</sup> ·°K |                          |
| Temperature range for applications                    | g            | -60 / +70 | -60 / +70 | -60 / +70 | °C                    |                          |
| Melting temperature                                   | g            | > 160     | > 160     | > 160     | °C                    |                          |
| Thermal decomposition                                 | g            | > 250     | > 250     | > 250     | °C                    |                          |
| Ignition temperature                                  | g            | 350-400   | 350-400   | 350-400   | °C                    |                          |
|   | g            | 450-500   | 450-500   | 450-500   | °C                    |                          |

\*both properties in comparison to a 24 cm brick wall

#### Miscellaneous properties

|   |                 |      |       |       |      |                |
|---|-----------------|------|-------|-------|------|----------------|
| Compression stress at 10% foam deformation  | $\sigma_{d10}$  | 0,10 | 0,15  | 0,15  | MPa  | DIN 53421      |
| Water absorption  | WA <sub>v</sub> | <0,1 | < 0,1 | < 0,1 | Vol% | DIN 53434      |
| Water vapour permeability resistance factor                                       | $\mu$           | 650  | 450   | 300   | -    | DIN 52615 tl.1 |
| Water vapour diffusion-equivalents of air-layer thickness ( $\mu \times s/1000$ ) | S <sub>d</sub>  | 2,0  | 2,7   | 2,7   | m    | DIN 52615 tl.1 |
| Wettability test  | $\gamma_c$      | > 42 | > 42  | > 42  | mN/m | DIN ISO 8296   |

#### Health aspects / Impact on the ambient air quality

|                                    |   |              |              |              |                    |
|------------------------------------|---|--------------|--------------|--------------|--------------------|
| VOC/COVvolatile organic components | C <sub>6</sub> to C <sub>16</sub>                             | A+           | A+           | A+           | Grenelle-Law       |
| Residual monomers, Benzol          | C <sub>6</sub> H <sub>6</sub> , C <sub>6</sub> H <sub>6</sub> | unverifiable | unverifiable | unverifiable | Grenelle-Law, AgBB |
| carcinogenic substances            |   | unverifiable | unverifiable | unverifiable | Grenelle-Law, AgBB |
| Low aldehyde (formaldehyde etc.)   | R-CHO   | unverifiable | unverifiable | unverifiable | Grenelle-Law, AgBB |

More special features:

Is odorless, does not rot and does not get moldy.

Only use solvent-free adhesives.

This information is based on our present state of knowledge and is intended to provide general notes on our products and their uses. It should not therefore be construed as guaranteeing specific properties of the products described or their suitability for a particular application. Any existing industrial property rights must be observed.  
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