


It is used for thermal insulation purpose between two metals on roofs and sidewalls of metal buildings which are installed on-site. Natural characteristics of mineral wools contribute to sound insulation. It provides fire safety with its class A1 non combustible property. It has a silicon additive, so it does not include water to its structure.

## Application

By spreading a coat of nylon cover on corrugated metal sheet of the roof as a vapor barrier, its joints are overlapped 10 cm and glued. Industrial Building Board is placed on vapor barrier layer. The application is completed with metal cladding.

Industrial Building Boards are properly placed in the cassette systems at facade applications. The application is completed by facade cladding. It is recommended to apply either acoustic band or insulation board on joints where the metals touch each other for preventing sound and thermal bridges.


| Thickness <br> $(\mathbf{m m})$ | Width $\mathbf{x}$ Length <br> $(\mathbf{m m})$ | Package <br> $\left(\mathbf{m}^{2}\right)$ | Pallet <br> $\left(\mathbf{m}^{2}\right)$ | Truck <br> Load <br> $($ with <br> packet $)$ <br> $\left(\mathbf{m}^{2}\right)$ | Truck |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Load <br> $($ with <br> pallet) <br> $\left(\mathbf{m}^{2}\right)$ |  |  |  |  |  |
| 50 | $600 \times 1200$ | 11,52 | 184,32 | $2.016,0$ | $1.843,2$ |
| 60 | $600 \times 1200$ | 8,64 | 138,24 | $1.512,0$ | $1.382,4$ |
| 80 | $600 \times 1200$ | 7,20 | 115,20 | $1.260,0$ | $1.152,0$ |
| 100 | $600 \times 1200$ | 5,76 | 92,16 | $1.008,0$ | 921,6 |
| 120 | $600 \times 1200$ | 4,32 | 69,12 | 756,0 | 691,2 |



- High thermal insulation - Easy to install
- Fire safety - Lightweight
- Sound insulation

TECHNICAL DATA SHEET
INDUSTRIAL BUILDING BOARD R+

| Properties | Symbol | Unit | Description |  |  |  |  |  | Tolerance | Standard |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Material | - | - | Mineral Wool |  |  |  |  |  | - | TS EN 13162 |
| Width | b | mm | 600 |  |  |  |  |  | +/-1,5\% | TS EN 822 |
| Length | I | mm | 1200 |  |  |  |  |  | +/-2\% | TS EN 822 |
| Thickness | d | mm | 40 | 50 | 60 | 80 | 100 | 120 | T3(**) | TS EN 823 |
| Facing | - | - | Uncoated |  |  |  |  |  | - | - |
| Reaction to fire | - | - | A1 |  |  |  |  |  | - | TS EN 13501-1 |
| Squareness | $\mathrm{S}_{\mathrm{b}}$ | mm/m | max. 5 |  |  |  |  |  | - | TS EN 824 |
| Flatness | $\mathrm{S}_{\text {max }}$ | mm | max. 6 |  |  |  |  |  | - | TS EN 825 |
| Dimensional Stability | $\Delta_{\text {dd }}$ | \% | max. 1 |  |  |  |  |  | - | TS EN 1604 |
| Thermal Conductivity (10oC) | $\lambda_{\text {D }}$ | W/m.K | 0,035 |  |  |  |  |  | - | $\begin{gathered} \text { TS EN } \\ 12667 / 12939 \end{gathered}$ |
| Thermal Resistance | $\mathrm{R}_{\mathrm{D}}$ | $\mathrm{m}^{2}$.K/W | 1,10 | 1,40 | 1,70 | 2,25 | 2,85 | 3,40 | - | TS EN 13162 |
| Maximum Service Temperature | - | ${ }^{\circ} \mathrm{C}$ | 250 |  |  |  |  |  | - | - |
| Specific Heat (*) | c | kJ/(kg.K) | 0,84 |  |  |  |  |  | - | EN 12524 |
| Short Term Water Absorption by Partial Immersion | $\mathrm{W}_{\mathrm{p}}$ | $\mathrm{kg} / \mathrm{m}^{2}$ | $\leq 1$ |  |  |  |  |  | - | EN 1609 |
| Long Term Water Absorption by Partial Immersion | $\mathrm{W}_{\text {ip }}$ | $\mathrm{kg} / \mathrm{m}^{2}$ | $\leq 3$ |  |  |  |  |  | - | EN 12087 |
| Water Vapor Diffusion Resistance (*) | $\mu$ | - | 1 |  |  |  |  |  | - | TS EN 12086 |
| Dynamic Elasticity (*) | Edyn | kN/m² | 0,8 |  |  |  |  |  | - | DIN 52214 |
| Packaging Material | - | - | PE Film+PE Sleeve |  |  |  |  |  | - | - |
| Application Area | It is used for thermal insulation in the roofs and sidewalls of metal buildings which are installed on-site. |  |  |  |  |  |  |  |  |  |
| Remarks | The products are water- repellent and contain silicon. |  |  |  |  |  |  |  |  |  |

(*) Literature Value (**)T3: $-3 \%$ or $-3 \mathrm{~mm} ;+10 \%$ or 10 mm .
The biggest value is choosed at minus tolerance, The smallest value is choosed at + tolerance.
Safety Reminders for Loading, Unloading, Shipping and Storing;

- These operations should be done indoors in case of rainy weather conditions.
- Loading and unloading should be done by (at least) two people.
- Products should be wrapped by a waterproof cover even if the shipping distance is short.
- Products should not be superposed with pallets.
- Products should not be put into upright position.
- Products should not be stepped on and should not be used as steps.
- Products should not be pulled by their package.
- Maximum 6 packages can be superposed.
- Before binding, hard cardboards (minimum $20 \times 50 \mathrm{~cm}$ ) should be put on the corners of packages to protect against possible damages by ropes.
- Storage area should be protected against any wet threats such as rain, float, etc. Indoor spaces should be preferred.
- The packages should be put on the floor with extra care so the corners of the product especially is not damaged by a hit.


