






## TECHNICAL CARD

### termPIR® BT R-eco INSULATION BOARDS



| termPIR® BT R-eco   |   | Product details:   |                         |                          |
|---|---|--|-------------------------|--------------------------|
| Description of board:   |   | The termPIR® BT insulation boards comprise of a PIR rigid foam thermal insulation core based on recycled materials. The boards are protected on both sides with gas-permeable lining from glass reticular fibre impregnated with bitumen (BT).   |                         |                          |
| Certificates / Approvals:   |   |    |                         |                          |
| CE mark   | ■ |  |                         |                          |
| ISO 9001, ISO 14001 System certificates   | ■ |  |                         |                          |
| Environmental Certificate and Declaration type II (regarding recycle content > 10%) | ■ |  |                         |                          |
| Environmental Certificate and Declaration type II (for hazardous substances)        | ■ |      |                         |                          |
|   |   | FIT (flat milling)   | LAP (stepwise milling)* | TAG (tongue and groove)* |
| * dimensions of boards with joint types are 2 to 4 % smaller                        |   |  |                         |                          |
| Information about product safety:   |   | Information about substances contained in the product referred to in Art. 31 and 33 of the Regulation (CE) No.1907/2006 (REACH): Not applicable.   |                         |                          |
| Instruction:  |   | <p>Boards can be installed in one or multiple layers in an interlocking manner. Boards should fit tightly to each other. The substructure needs to be stable.</p> <p>Install mechanically with fasteners, glue or suspend - depending on the kind of substructure and type of waterproofing. Prevent from pulling the fasteners through the board. Secure against the impact of weather conditions. The boards are not load-bearing elements</p> <p>Additional information is available in the Technical Catalogue at the website <a href="http://www.termpir.eu">www.termpir.eu</a></p> |                         |                          |

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|---|---|--|-------------|------|------|------|------|-------|------|
| Kind of core:   | Rigid polyisocyanurate foam (PIR)   |  |             |      |      |      |      |       |      |
| Apparent PIR core density:  | $\rho = 30 \text{ kg/m}^3$  |  |             |      |      |      |      |       |      |
| Declared heat transfer coefficient for lining:  | for $(20 \leq d_N < 80 \text{ mm})$ : $\lambda_D = 0,027 \text{ (W/m}\cdot\text{K)}$      |  |             |      |      |      |      |       |      |
|   | for $(80 \leq d_N < 120 \text{ mm})$ : $\lambda_D = 0,026 \text{ (W/m}\cdot\text{K)}$     |  |             |      |      |      |      |       |      |
|   | for $(120 \leq d_N \leq 250 \text{ mm})$ : $\lambda_D = 0,025 \text{ (W/m}\cdot\text{K)}$ |  |             |      |      |      |      |       |      |
| Standard board dimensions [mm]:   | 600 x 1200 / 1200 x 2400 (minus the depth of the joint)                                   |  |             |      |      |      |      |       |      |
| Available boards dimensions [mm]:   | 1000 x 1200 / 1200 x 1200 / 1200 x 1800 / 1200 x 3000 (minus the depth of the joint)      |  |             |      |      |      |      |       |      |
| Coefficient: U [W/m <sup>2</sup> ·K], wg<br>U = 1 / (Re + R <sub>D</sub> + Ri)                  |   |  |             |      |      |      |      |       |      |
| For a given nominal thickness [mm]:<br>Thermal resistance: R <sub>D</sub> [m <sup>2</sup> ·K/W] | for wall  | 20   | 1,10        | 30   | 0,78 | 40   | 0,61 | 50    | 0,49 |
|   | or roof   | 0,70   | 1,14        | 1,10 | 0,80 | 1,45 | 0,62 | 1,85  | 0,50 |
|   | for floor   |  | 1,10        |      | 0,78 |      | 0,61 |       | 0,49 |
|   |   | 60   | 0,42        | 70   | 0,36 | 80   | 0,31 | 90    | 0,28 |
|   |   | 2,20   | 0,42        | 2,55 | 0,37 | 3,05 | 0,31 | 3,45  | 0,28 |
|   |   |  | 0,42        |      | 0,36 |      | 0,31 |       | 0,28 |
|   |   | 100  | 0,25        | 110  | 0,23 | 120  | 0,20 | 130   | 0,19 |
|   |   | 3,80   | 0,25        | 4,20 | 0,23 | 4,80 | 0,20 | 5,20  | 0,19 |
|   |   |  | 0,25        |      | 0,23 |      | 0,20 |       | 0,19 |
|   |   | 140  | 0,17        | 150  | 0,16 | 160  | 0,15 | 170   | 0,14 |
|   |   | 5,60   | 0,17        | 6,00 | 0,16 | 6,40 | 0,15 | 6,80  | 0,14 |
|   |   |  | 0,17        |      | 0,16 |      | 0,15 |       | 0,14 |
|   |   | 180  | 0,14        | 190  | 0,13 | 200  | 0,12 | 210   | 0,12 |
|   |   | 7,20   | 0,14        | 7,60 | 0,13 | 8,00 | 0,12 | 8,40  | 0,12 |
|   |   |  | 0,14        |      | 0,13 |      | 0,12 |       | 0,12 |
|   |   | 220  | 0,11        | 230  | 0,11 | 240  | 0,10 | 250   | 0,10 |
|   |   | 8,80   | 0,11        | 9,20 | 0,11 | 9,60 | 0,10 | 10,00 | 0,10 |
|   |   |  | 0,11        |      | 0,11 |      | 0,10 |       | 0,10 |
| Compressive strength at 10% of deformation:   |   | $\sigma \geq 120 \text{ kPa}$                | CS(10/Y)120 |      |      |      |      |       |      |
| Reaction to fire (of the product as placed on the market):                                      |   | F class                                      |             |      |      |      |      |       |      |
| Specific heat   |   | cp= 1,4 [kJ/kg·K], according to EN ISO 10456 |             |      |      |      |      |       |      |
| Vapour diffusion coefficient for PIR core   |   | $\mu \geq 60$ , according to EN ISO 10456    |             |      |      |      |      |       |      |

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| Buildings:                         | Intended use of the board:                                   |   |
|------------------------------------|--|---|
| residential, high density housing  | on rafter insulation system on pitched roofs                 |   |
| residential                        | under rafter insulation system on pitched roof               |   |
| residential, retail and industrial | build Up Roofs [BUR] - Flat roofs, mechanically fastened     | ■ |
| residential, retail and industrial | build Up Roofs [BUR] - Flat roofs, adhesive or glued systems | ■ |
| residential, retail and industrial | triple layered external walls - cavity walls                 |   |
| residential, retail and industrial | double layered external walls - ETICS system                 |   |
| residential, retail and industrial | basement and foundation walls                                | ■ |
| residential, retail and industrial | partition walls  |   |
| residential, retail and industrial | slabs between floors   |   |
| residential, retail and industrial | ground floor slabs   | ■ |
| livestock, industrial              | suspended ceilings - high pressure washable                  |   |
| existing, historic, stair-cores    | internal wall insulation                                     |   |
| prefabricated concrete walls       | highly resistant to corrosion caused by concrete             |   |

■ the board recommended for use