

## Technical Data Sheet

# Glastherm<sup>®</sup> HT 220

### Typical characteristics

- Fibre-reinforced composite material developed for applications in field of thermal insulation (max. continuous operating temperature 220°C)
- Low thermal conductivity

### Typical industries

- 화학 가공 산업
- 기계 공학 산업
- Pipelines
- Oil and Gas

|   | Test method   | Unit                               | Guideline value |
|---|---------------|------------------------------------|-----------------|
| <b>Mechanical properties</b>                  |               |                                    |                 |
| Density                                       | ISO 1183      | g / cm <sup>3</sup>                | 1,85            |
| Flexural strength <sup>⊥</sup>                | ISO 178       | MPa                                | 360             |
| Modulus of elasticity in flexion <sup>⊥</sup> | ISO 178       | MPa                                | 18000           |
| Compressive strength <sup>1) ⊥</sup>          | ISO 604       | MPa                                | 500             |
| Compressive strength <sup>1) ⊥</sup> +200°C   | ISO 604       | MPa                                | 360             |
| Tensile strength II                           | ISO 527       | MPa                                | 280             |
| Impact strength <sup>⊥</sup> (Charpy)         | ISO 179       | kJ / m <sup>2</sup>                | 150             |
| Splitting force II                            | DIN 53463     | N                                  | 4000            |
| <b>Thermal properties</b>                     |               |                                    |                 |
| Thermal conductivity <sup>2) ⊥</sup>          |               | W / (m * K)                        | ≈ 0,25          |
| Coefficient of linear expansion II            | TMA (Mettler) | 10 <sup>-6</sup> x K <sup>-1</sup> | ≈ 10 - 15       |
| Max. continuous operating temperature         |               | °C                                 | 220             |
| <b>Physical properties</b>                    |               |                                    |                 |
| Water absorption (4mm thickness)              | ISO 62        | %                                  | 0,1             |

⊥ = perpendicular to the lamination II = parallel to the lamination

<sup>1)</sup> Sample size: 20 x 20 x 20 mm

<sup>2)</sup> Thermal conductivity calculated by means of reference measurements on samples of 300 x 200 x 10 mm

The data stated above are average values verified on the basis of regular statistical tests and controls. All information in this publication is based on current technical knowledge and experience. Due to the large number of possible influences during processing and application, it does not exempt the user/processor from carrying out their own tests and trials.

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Print: 12/05/2024 • Release: 20/09/2023

PIM-Version: 383 • PIM-ID: 716636 • PIM-Code: 383-40-9.10-7.5.4.5-16

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