

## Data sheet

### Pocan B1501 000000

PBT, non-reinforced, injection molding, extrusion, suitable for food-contact

ISO Shortname: ISO 20028-PBT, GR, 11-030

| Property                                              | Test Condition                        | Unit                      | Standard        | guide value |
|-------------------------------------------------------|---------------------------------------|---------------------------|-----------------|-------------|
| <b>Rheological properties</b>                         |                                       |                           |                 |             |
| C Melt volume-flow rate                               | 250 °C; 2.16 kg                       | cm <sup>3</sup> /(10 min) | ISO 1133-1      | 16          |
| C Molding shrinkage, parallel                         | 60x60x2; 250 °C / WZ 80° C; 600 bar % |                           | ISO 294-4       | 1.8         |
| C Molding shrinkage, transverse                       | 60x60x2; 250 °C / WZ 80° C; 600 bar % |                           | ISO 294-4       | 1.8         |
| Post- shrinkage, parallel                             | 60x60x2; 120 °C; 4 h                  | %                         | ISO 294-4       | 0.3         |
| Post- shrinkage, transverse                           | 60x60x2; 120 °C; 4 h                  | %                         | ISO 294-4       | 0.3         |
| <b>Mechanical properties (23 °C/50 % r. h.)</b>       |                                       |                           |                 |             |
| C Tensile modulus                                     | 1 mm/min                              | MPa                       | ISO 527-1,-2    | 2600        |
| C Yield stress                                        | 50 mm/min                             | MPa                       | ISO 527-1,-2    | 60          |
| C Yield strain                                        | 50 mm/min                             | %                         | ISO 527-1,-2    | 4.0         |
| C Nominal strain at break                             | 50 mm/min                             | %                         | ISO 527-1,-2    | >15         |
| C Tensile creep modulus                               | 1 h                                   | MPa                       | ISO 899-1       | 2200        |
| C Tensile creep modulus                               | 1000 h                                | MPa                       | ISO 899-1       | 1300        |
| C Charpy impact strength                              | 23 °C                                 | kJ/m <sup>2</sup>         | ISO 179-1eU     | N           |
| C Charpy impact strength                              | -30 °C                                | kJ/m <sup>2</sup>         | ISO 179-1eU     | 195         |
| C Charpy notched impact strength                      | 23 °C                                 | kJ/m <sup>2</sup>         | ISO 179-1eA     | < 10        |
| C Charpy notched impact strength                      | -30 °C                                | kJ/m <sup>2</sup>         | ISO 179-1eA     | < 10        |
| Izod impact strength                                  | 23 °C                                 | kJ/m <sup>2</sup>         | ISO 180-1U      | N           |
| Izod impact strength                                  | -30 °C                                | kJ/m <sup>2</sup>         | ISO 180-1U      | 200         |
| Izod notched impact strength                          | 23 °C                                 | kJ/m <sup>2</sup>         | ISO 180-1A      | < 10        |
| Izod notched impact strength                          | -30 °C                                | kJ/m <sup>2</sup>         | ISO 180-1A      | < 10        |
| Izod notched impact strength                          | -40 °C                                | kJ/m <sup>2</sup>         | ISO 180-1A      | < 10        |
| Flexural modulus                                      | 2 mm/min                              | MPa                       | ISO 178-A       | 2600        |
| Flexural strength                                     | 2 mm/min                              | MPa                       | ISO 178-A       | 85          |
| Flexural strain at flexural strength                  | 2 mm/min                              | %                         | ISO 178-A       | 6.0         |
| Flexural stress at 3.5 % strain                       | 2 mm/min                              | MPa                       | ISO 178-A       | 75          |
| Energy to peak force                                  | 23 °C                                 | Nm                        | acc. ISO 6603-2 | 120         |
| Ball indentation hardness                             |                                       | N/mm <sup>2</sup>         | ISO 2039-1      | 120         |
| <b>Thermal properties</b>                             |                                       |                           |                 |             |
| C Melting temperature                                 | 10 °C/min                             | °C                        | ISO 11357-1,-3  | 225         |
| C Temperature of deflection under load                | 1.80 MPa                              | °C                        | ISO 75-1,-2     | 55          |
| C Temperature of deflection under load                | 0.45 MPa                              | °C                        | ISO 75-1,-2     | 150         |
| C Temperature of deflection under load                | 8.00 MPa                              | °C                        | ISO 75-1,-2     | 45          |
| Vicat softening temperature                           | 50 N; 120 °C/h                        | °C                        | ISO 306         | 175         |
| C Coefficient of linear thermal expansion, parallel   | 23 to 55 °C                           | 10-4/K                    | ISO 11359-1,-2  | 1.1         |
| C Coefficient of linear thermal expansion, transverse | 23 to 55 °C                           | 10-4/K                    | ISO 11359-1,-2  | 1.1         |
| C Burning behavior UL 94                              | 1.5 mm                                | Class                     | UL 94           | HB          |
| C Burning behavior UL 94                              | 0.75 mm                               | Class                     | UL 94           | HB          |
| C Oxygen index                                        | Method A                              | %                         | ISO 4589-2      | 24          |
| Thermal conductivity                                  | 23 °C                                 | W/(m·K)                   | ISO 8302        | 0.25        |
| Resistance to heat (ball pressure test)               |                                       | °C                        | IEC 60695-10-2  | 190         |
| Glow wire test (GWFI)                                 | 2.0 mm                                | °C                        | IEC 60695-2-12  | 750         |
| Burning behavior US-FMVSS302                          |                                       |                           | ISO 3795        | passed      |
| <b>Electrical properties (23 °C/50 % r. h.)</b>       |                                       |                           |                 |             |
| C Relative permittivity                               | 100 Hz                                | -                         | IEC 60250       | 3.4         |
| C Relative permittivity                               | 1 MHz                                 | -                         | IEC 60250       | 3.2         |
| C Dissipation factor                                  | 100 Hz                                | 10-4                      | IEC 60250       | 15          |
| C Dissipation factor                                  | 1 MHz                                 | 10-4                      | IEC 60250       | 190         |
| C Volume resistivity                                  |                                       | Ohm·m                     | IEC 60093       | >1E12       |
| C Surface resistivity                                 |                                       | Ohm                       | IEC 60093       | >1E15       |
| C Electric strength                                   | 1 mm                                  | kV/mm                     | IEC 60243-1     | 27          |
| C Comparative tracking index CTI                      | Solution A                            | Rating                    | IEC 60112       | 600         |
| <b>Other properties (23 °C)</b>                       |                                       |                           |                 |             |
| C Water absorption (Saturation value)                 | Water at 23 °C                        | %                         | ISO 62          | 0.5         |

|                                               |                |                   |          |      |
|-----------------------------------------------|----------------|-------------------|----------|------|
| <b>C</b> Water absorption (Equilibrium value) | 23 °C; 50 % RH | %                 | ISO 62   | 0.2  |
| <b>C</b> Density                              |                | kg/m <sup>3</sup> | ISO 1183 | 1310 |
| Bulk density                                  |                | kg/m <sup>3</sup> | ISO 60   | 800  |

#### Processing conditions for test specimens

|                                             |    |         |     |
|---------------------------------------------|----|---------|-----|
| <b>C</b> Injection molding-Melt temperature | °C | ISO 294 | 250 |
| <b>C</b> Injection molding-Mold temperature | °C | ISO 294 | 80  |

#### Processing recommendations

|                                          |    |                      |           |
|------------------------------------------|----|----------------------|-----------|
| Drying temperature circulating air dryer | °C | -                    | 120       |
| Drying time circulating air dryer        | h  | -                    | 4-8       |
| Residual moisture content                | %  | Acc. to Karl Fischer | 0.00-0.02 |
| Melt temperature (Tmin - Tmax)           | °C | -                    | 250-260   |
| Mold temperature                         | °C | -                    | 80-100    |

**C** These property characteristics are taken from the CAMPUS plastics data bank and are based on the international catalogue of basic data for plastics according to ISO 10350.

## Disclaimer

### Standard Disclaimer

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### Typical Properties

Property data is provided as general information only. Property values are approximate and are not part of the product specifications.

### Flammability

Flammability results are based on small-scale laboratory tests for purposes of relative comparison and are not intended to reflect the hazards presented by this or any other material under actual fire conditions.

### Health and Safety

Appropriate literature has been assembled which provides information concerning the health and safety precautions that must be observed when handling LANXESS products mentioned in this publication. Before working with these products, you must read and become familiar with the available information on their hazards, proper use, and handling. This cannot be overemphasized. Information is available in several forms, e.g., material safety data sheets (MSDS) and product labels. Consult your LANXESS Corporation representative or contact the Product Safety and Regulatory Affairs Department at LANXESS. For materials that are not LANXESS products, appropriate industrial hygiene and other safety precautions recommended by their manufacturer(s) must be followed.

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### Color and Visual Effects

Type and quantity of pigments or additives used to obtain certain colors and special visual effects can affect mechanical properties.

LANXESS Corporation | Pittsburgh, PA 15275

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