

## Data sheet

### Pocan B1205XF 000000

PBT, non-reinforced, injection molding, improved flowability, improved impact strength

ISO Shortname: ISO 20028-PBT,,GHMPR,09-020

| 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           | 50          |
| C Molding shrinkage, parallel                         | 60x60x2; 250 °C / WZ 80° C; 600 bar % |                           | ISO 294-4            | 2.1         |
| C Molding shrinkage, transverse                       | 60x60x2; 250 °C / WZ 80° C; 600 bar % |                           | ISO 294-4            | 2.1         |
| 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         | 2500        |
| C Yield stress                                        | 50 mm/min                             | MPa                       | ISO 527-1,-2         | 55          |
| C Yield strain                                        | 50 mm/min                             | %                         | ISO 527-1,-2         | 5.0         |
| C Nominal strain at break                             | 50 mm/min                             | %                         | ISO 527-1,-2         | 10          |
| C Charpy impact strength                              | 23 °C                                 | kJ/m <sup>2</sup>         | ISO 179-1eU          | 140         |
| C Charpy impact strength                              | -30 °C                                | kJ/m <sup>2</sup>         | ISO 179-1eU          | 120         |
| 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           | 110         |
| Izod impact strength                                  | -30 °C                                | kJ/m <sup>2</sup>         | ISO 180-1U           | 90          |
| 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         |
| Flexural modulus                                      | 2 mm/min                              | MPa                       | ISO 178-A            | 2500        |
| Flexural strength                                     | 2 mm/min                              | MPa                       | ISO 178-A            | 85          |
| Flexural strain at flexural strength                  | 2 mm/min                              | %                         | ISO 178-A            | 5.9         |
| Flexural stress at 3.5 % strain                       | 2 mm/min                              | MPa                       | ISO 178-A            | 75          |
| <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          | 60          |
| C Temperature of deflection under load                | 0.45 MPa                              | °C                        | ISO 75-1,-2          | 150         |
| Vicat softening temperature                           | 50 N; 120 °C/h                        | °C                        | ISO 306              | 180         |
| C Coefficient of linear thermal expansion, parallel   | 23 to 55 °C                           | 10-4/K                    | ISO 11359-1,-2       | 1.2         |
| C Coefficient of linear thermal expansion, transverse | 23 to 55 °C                           | 10-4/K                    | ISO 11359-1,-2       | 1.2         |
| C Burning behavior UL 94                              | 1.5 mm                                | Class                     | UL 94                | HB          |
| C Burning behavior UL 94                              | 0.75 mm                               | Class                     | UL 94                | HB          |
| Burning behavior US-FMVSS302                          |                                       |                           | ISO 3795             | passed      |
| <b>Electrical properties (23 °C/50 % r. h.)</b>       |                                       |                           |                      |             |
| C Comparative tracking index CTI                      | Solution A                            | Rating                    | IEC 60112            | 600         |
| <b>Other properties (23 °C)</b>                       |                                       |                           |                      |             |
| C Density                                             |                                       | kg/m <sup>3</sup>         | ISO 1183             | 1290        |
| Bulk density                                          |                                       | kg/m <sup>3</sup>         | ISO 60               | 800         |
| <b>Material specific properties</b>                   |                                       |                           |                      |             |
| C Viscosity number                                    |                                       | cm <sup>3</sup> /g        | ISO 1628-5           | 100         |
| <b>Processing conditions for test specimens</b>       |                                       |                           |                      |             |
| C Injection molding-Melt temperature                  |                                       | °C                        | ISO 294              | 250         |
| C Injection molding-Mold temperature                  |                                       | °C                        | ISO 294              | 80          |
| <b>Processing recommendations</b>                     |                                       |                           |                      |             |
| Drying temperature circulating air dryer              |                                       | °C                        | -                    | 120         |
| Drying time circulating air dryer                     |                                       | h                         | -                    | 4-8         |
| Residual moisture content                             |                                       | %                         | Acc. to Karl Fischer | 0-0.02      |
| 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.

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

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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.

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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.

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