

## Pocan DP T7140 LDS 000000

PET/PBT-injection molding grade, 40 % mineral and glas fibres; laser induced 3D-MID metallisation acc. to LDS-process by LPKG AG (www.lkpf.de), claims for the process of laser induced metalisation by LPKF AG; high thermal dimension stability (250°C HDT-Bf), less heat expansion, intrinsic color black ,adhesive strength of the conductor lines > 10 N/cm, suitable for lead free reflow soldering

ISO Shortname: ISO7792-PET+PBT,MHR,-120,(GF+TD)40

| Property  | Test Condition                           | Unit                      | Standard       | Value |
|---|--|---------------------------|----------------|-------|
| <b>Rheological properties</b>                         |  |                           |                |       |
| C Melt volume-flow rate                               | 280 °C; 2.16 kg                          | cm <sup>3</sup> /(10 min) | ISO 1133       | 21    |
| Molding shrinkage, parallel                           | 150x105x3; 280 °C / MT<br>80 °C; 600 bar | %                         | acc. ISO 2577  | 0.21  |
| Molding shrinkage, normal                             | 150x105x3; 280 °C / MT<br>80 °C; 600 bar | %                         | acc. ISO 2577  | 1.04  |
| Post- shrinkage, parallel                             | 150x105x3; 150 °C; 1 h                   | %                         | acc. ISO 2577  | 0.07  |
| Post- shrinkage, normal                               | 150x105x3; 150 °C; 1 h                   | %                         | acc. ISO 2577  | 0.19  |
| C Molding shrinkage, parallel                         | 60x60x2; 280 °C / MT 80<br>°C; 600 bar   | %                         | ISO 294-4      | 0.15  |
| C Molding shrinkage, normal                           | 60x60x2; 280 °C / MT 80<br>°C; 600 bar   | %                         | ISO 294-4      | 0.6   |
| Post- shrinkage, parallel                             | 60x60x2; 150 °C; 1 h                     | %                         | ISO 294-4      | 0.05  |
| Post- shrinkage, normal                               | 60x60x2; 150 °C; 1 h                     | %                         | ISO 294-4      | 0.2   |
| <b>Mechanical properties (23 °C/50 % r. h.)</b>       |  |                           |                |       |
| C Tensile modulus                                     | 1 mm/min                                 | MPa                       | ISO 527-1,-2   | 12000 |
| C Stress at break                                     | 5 mm/min                                 | MPa                       | ISO 527-1,-2   | 100   |
| C Strain at break                                     | 5 mm/min                                 | %                         | ISO 527-1,-2   | 1.1   |
| C Charpy impact strength                              | 23 °C                                    | kJ/m <sup>2</sup>         | ISO 179-1eU    | 30    |
| C Charpy impact strength                              | -30 °C                                   | kJ/m <sup>2</sup>         | ISO 179-1eU    | 30    |
| Izod impact strength                                  | 23 °C                                    | kJ/m <sup>2</sup>         | ISO 180-1U     | 25    |
| Izod impact strength                                  | -30 °C                                   | kJ/m <sup>2</sup>         | ISO 180-1U     | 25    |
| 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        | 12000 |
| Flexural strength                                     | 2 mm/min                                 | MPa                       | ISO 178        | 160   |
| Flexural strain at flexural strength                  | 2 mm/min                                 | %                         | ISO 178        | 1.7   |
| <b>Thermal properties</b>                             |  |                           |                |       |
| C Melting temperature                                 | 10 °C/min                                | °C                        | ISO 11357-1,-3 | 255   |
| C Temperature of deflection under load                | 1.80 MPa                                 | °C                        | ISO 75-1,-2    | 210   |
| C Temperature of deflection under load                | 0.45 MPa                                 | °C                        | ISO 75-1,-2    | 250   |
| Vicat softening temperature                           | 50 N; 120 °C/h                           | °C                        | ISO 306        | 225   |
| C Coefficient of linear thermal expansion, parallel   | 23 to 55 °C                              | 10 <sup>-4</sup> /K       | ISO 11359-1,-2 | 0.36  |
| C Coefficient of linear thermal expansion, transverse | 23 to 55 °C                              | 10 <sup>-4</sup> /K       | ISO 11359-1,-2 | 0.56  |
| C Burning behavior UL 94 (1.6 mm)                     | 1.5 mm                                   | Class                     | UL 94          | HB    |
| Thermal conductivity                                  | 23 °C                                    | W/(m·K)                   | ISO 8302       | 0.3   |



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| Property  | Test Condition | Unit              | Standard    | Value  |
|---|----------------|-------------------|-------------|--------|
| <b>Electrical properties (23 °C/50 % r. h.)</b> |                |                   |             |        |
| C Volume resistivity                            |                | Ohm·m             | IEC 60093   | 2E18   |
| C Surface resistivity                           |                | Ohm               | IEC 60093   | 5.4E16 |
| C Electric strength                             | 1 mm           | kV/mm             | IEC 60243-1 | 33     |
| C Comparative tracking index CTI                | Solution A     | Rating            | IEC 60112   | 250    |
| <b>Other properties (23 °C)</b>                 |                |                   |             |        |
| C Density                                       |                | kg/m <sup>3</sup> | ISO 1183    | 1750   |
| Glass fiber / glass bead / filler content       |                | %                 | ISO 3451-1  | 40     |
| <b>Processing conditions for test specimens</b> |                |                   |             |        |
| C Injection molding-Melt temperature            |                | °C                | ISO 294     | 280    |
| C Injection molding-Mold temperature            |                | °C                | ISO 294     | 80     |

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

### Disclaimer for developmental products

This is a developmental product. Further information, including amended or supplementary data on hazards associated with its use, may be compiled in the future. For this reason no assurances are given as to type conformity, processability, long-term performance characteristics or other production or application parameters. Therefore, the purchaser/user uses the product entirely at his own risk without having been given any warranty or guarantee and agrees that the supplier shall not be liable for any damages, of whatever nature, arising out of such use. Commercialization and continued supply of this material are not assured. Its supply may be discontinued at any time. Our products are sold and our advisory service is given in accordance with the current version of our General Conditions of Sale and Delivery.

### Test values

Unless specified to the contrary, the values given have been established on standardized test specimens at room temperature. The figures should be regarded as guide values only and not as binding minimum values. Kindly note that, under certain conditions, the properties can be affected to a considerable extent by the design of the mould/die, the processing conditions and the colouring.

### Processing note

Under the recommended processing conditions small quantities of decomposition product may be given off during processing. To preclude any risk to the health and well-being of the machine operatives, tolerance limits for the work environment must be ensured by the provision of efficient exhaust ventilation and fresh air at the workplace in accordance with the Safety Data Sheet. In order to prevent the partial decomposition of the polymer and the generation of volatile decomposition products, the prescribed processing temperatures should not be substantially exceeded. Since excessively high temperatures are generally the result of operator error or defects in the heating system, special care and controls are essential in these areas.

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