

## M1030B

Type : High strength, high rigidity, low density

Identification mark : PA6

| Property        | Test conditions                         | Standard                                | Unit                      | DAM                    | Conditioned (50%RH) |
|-----------------|-----------------------------------------|-----------------------------------------|---------------------------|------------------------|---------------------|
| MECHANICAL      | Tensile stress at yield                 | ISO 527-1,-2                            | MPa                       | 90                     | 50                  |
|                 | Tensile stress at break                 |                                         |                           |                        |                     |
|                 | Tensile modulus                         |                                         | MPa                       | 3700                   | 1900                |
|                 | Tensile strain at yield                 |                                         | %                         | 4                      | 20                  |
|                 | Tensile strain at break                 |                                         |                           | 20                     | 35                  |
|                 | Flexural strength                       | ISO 178                                 | MPa                       | 130                    | 45                  |
|                 | Flexural modulus                        |                                         | MPa                       | 3700                   | 1800                |
|                 | Charpy impact strength                  | ISO 179/1eU                             | kJ/m <sup>2</sup>         |                        |                     |
|                 | Charpy impact strength                  | ISO 179/1eA                             |                           | 4                      | 20                  |
|                 | Rockwell Hardness                       | ISO 2039-2                              | —                         |                        |                     |
| THERMAL         | Thermal conductive                      | Planar direction<br>Thickness direction | ISO 18755                 | W/(m·K)                |                     |
|                 | Coefficient of linear thermal expansion | flow<br>transverse                      | ISO 11359-2               | 10 <sup>-4</sup> /°C   | 0.6                 |
|                 | Temperature of deflection under load    | 1.8MPa<br>0.45MPa                       | ISO 75-1,-2               | °C                     | 135<br>180          |
| ELECTRICAL      | Volume resistivity                      |                                         | IEC 62631-3-1             | Ω·m                    | 10 <sup>13</sup>    |
|                 | Electric strength                       | t:1mm                                   | IEC 60243-1               | kV/mm                  |                     |
|                 | Relative permittivity                   | 10 <sup>6</sup> Hz                      | IEC 62631-2-1             | —                      |                     |
|                 | Dissipation factor                      | 10 <sup>6</sup> Hz                      | IEC 62631-2-1             | —                      |                     |
|                 | Comparative tracking Index              |                                         | IEC 60112                 | —                      |                     |
| OTHERS          | Density                                 |                                         | ISO 1183                  | g/cm <sup>3</sup>      | 1.14                |
|                 | Water absorption                        | 23°C,50%RH                              | ISO 62                    | %                      | 2.8                 |
|                 | Mold shrinkage                          | flow<br>transverse                      | UNITIKA<br>Method<br>3mmt | %                      | 1.5<br>1.6          |
|                 | MVR                                     | 275°C,5kg                               | ISO 1133                  | cm <sup>3</sup> /10min | 110                 |
|                 | Flammability                            | mmt                                     | UL94<br>File No.E47924    | —                      |                     |
|                 |                                         |                                         |                           |                        |                     |
| Mold conditions | Cylinder Temperature                    |                                         |                           | °C                     | 230-260             |
|                 | Mold temperature                        |                                         |                           | °C                     | 50-100              |

The data listed here are typical of average lots and not guaranteed values .