

# DSM Engineering Plastics - Property Data

## Arnite® TV4 440 KL

(PBT+PET)-GF20

20% Glass Reinforced, Heat Stabilised, UV Stabilised

| Properties                                   | Typical Data | Unit              | Test Method     |
|----------------------------------------------|--------------|-------------------|-----------------|
| <b>MECHANICAL PROPERTIES</b>                 |              |                   |                 |
| Tensile modulus                              | <b>7500</b>  | MPa               | ISO 527-1/-2    |
| Stress at break                              | <b>120</b>   | MPa               | ISO 527-1/-2    |
| Strain at break                              | <b>3</b>     | %                 | ISO 527-1/-2    |
| Charpy impact strength (+23°C)               | <b>40</b>    | kJ/m <sup>2</sup> | ISO 179/1eU     |
| Charpy impact strength (-30°C)               | <b>40</b>    | kJ/m <sup>2</sup> | ISO 179/1eU     |
| Charpy notched impact strength (+23°C)       | <b>9</b>     | kJ/m <sup>2</sup> | ISO 179/1eA     |
| Charpy notched impact strength (-30°C)       | <b>9</b>     | kJ/m <sup>2</sup> | ISO 179/1eA     |
| <b>THERMAL PROPERTIES</b>                    |              |                   |                 |
| Temp. of deflection under load (1.80 MPa)    | <b>205</b>   | °C                | ISO 75-1/-2     |
| Temp. of deflection under load (0.45 MPa)    | <b>220</b>   | °C                | ISO 75-1/-2     |
| Coeff. of linear therm. expansion (parallel) | <b>0.3</b>   | E-4/°C            | ISO 11359-1/-2  |
| Coeff. of linear therm. expansion (normal)   | <b>0.9</b>   | E-4/°C            | ISO 11359-1/-2  |
| Burning Behav. at 1.6 mm nom. thickn.        | <b>HB</b>    | class             | IEC 60695-11-10 |
| Thickness tested                             | <b>1.6</b>   | mm                | IEC 60695-11-10 |
| <b>ELECTRICAL PROPERTIES</b>                 |              |                   |                 |
| Relative permittivity (100Hz)                | <b>3.9</b>   | -                 | IEC 60250       |
| Relative permittivity (1 MHz)                | <b>3.7</b>   | -                 | IEC 60250       |
| Dissipation factor (100 Hz)                  | <b>20</b>    | E-4               | IEC 60250       |
| Dissipation factor (1 MHz)                   | <b>180</b>   | E-4               | IEC 60250       |
| Comparative tracking index                   | <b>225</b>   | -                 | IEC 60112       |
| <b>OTHER PROPERTIES</b>                      |              |                   |                 |
| Water absorption                             | <b>0.35</b>  | %                 | Sim. to ISO 62  |
| Humidity absorption                          | <b>0.15</b>  | %                 | Sim. to ISO 62  |
| Density                                      | <b>1460</b>  | kg/m <sup>3</sup> | ISO 1183        |

