



# PEEK ZOVGOV® M770FC30

| Test Item   | Test Method | Conditions          | Units                              | Test Data |
|---|-------------|---------------------|------------------------------------|-----------|
| <b>Mechanical Data</b>                                    |             |                     |                                    |           |
| Tensile Strength  | ISO 527     | Break, 23°C         | MPa                                | 140       |
| Tensile Elongation  | ISO 527     | Break, 23°C         | %                                  | 2.2       |
| Flexural Strength   | ISO 178     | Break, 23°C         | MPa                                | 230       |
| Flexural Modulus  | ISO 178     | 23°C                | GPa                                | 11.5      |
| Compressive Strength                                      | ISO 604     | 23°C                | MPa                                | 170       |
| Charpy Impact Strength                                    | ISO 179/1eA | Notched             | $\text{kJ m}^{-2}$                 | 5         |
|   | ISO 179/1U  | Unnotched           | $\text{kJ m}^{-2}$                 | 35        |
| Izod Impact Strength                                      | ISO 180/A   | Notched             | $\text{kJ m}^{-2}$                 | 6         |
|   | ISO 180/U   | Unnotched           | $\text{kJ m}^{-2}$                 | 35        |
| Mould Shrinkage   | ISO 294-4   | Along Flow          | %                                  | 0.3       |
|   |             | Across Flow         | %                                  | 0.7       |
| <b>Thermal Data</b>                                       |             |                     |                                    |           |
| Melting Point   | ISO 11357   | -                   | °C                                 | 343       |
| Glass Transition (Tg)                                     | ISO 11357   | Onset               | °C                                 | 143       |
| Special Heat Capacity                                     | DSC         | 23°C                | $\text{kJ kg}^{-1} \text{°C}^{-1}$ | 1.8       |
| Coefficient of Thermal Expansion                          | ISO 11359   | Along flow below Tg | $\text{ppm K}^{-1}$                | 15        |
|   |             | Along flow above Tg | $\text{ppm K}^{-1}$                | 20        |
| Heat Deflection Temperature                               | ISO 75      | 1.8 Mpa             | °C                                 | 315       |
| Thermal Conductivity                                      | ISO 22007-4 | 23°C                | $\text{W m}^{-1} \text{K}^{-1}$    | 0.87      |
| <b>Flow</b>   |             |                     |                                    |           |
| Melt Index  | ISO 1133    | 380°C,5kg           | $\text{g 10min}^{-1}$              | 2.5       |
| <b>Miscellaneous</b>                                      |             |                     |                                    |           |
| Density   | ISO 1183    | Crystalline         | $\text{g cm}^{-3}$                 | 1.45      |
|   |             | Amorphous           | $\text{g cm}^{-3}$                 | -         |
| Shore D Hardness  | ISO 868     | 23°C                |                                    | 83        |
| Water Absorption (3.2mm thick Tensile Bar) (by immersion) | ISO 62      | 24h, 23°C           | %                                  | 0.04      |
|   |             | Equilibrium, 23°C   | %                                  | 0.3       |



## Electrical Data

|                            |             |            |                     |                  |
|----------------------------|-------------|------------|---------------------|------------------|
| Dielectric Strength        | IEC 60243-1 | 2mm        | kV mm <sup>-1</sup> | -                |
| Comparative Tracking Index | IEC 60112   | -          | V                   | -                |
| Dielectric Constant        | IEC 60250   | 23°C, 1kHz | -                   | -                |
|                            |             | 23°C, 50Hz | -                   | -                |
| Loss Tangent               | IEC 60250   | 23°C, 1MHz | -                   | -                |
| Volume Resistivity         | IEC 60093   | 23°C, 1V   | Ω cm                | 10 <sup>10</sup> |
|                            |             | 275°C      | Ω cm                | -                |

\*Result based on similar products