# Technical Data Sheet

## Badamid® B70 CF35

PA6-CF35

Polyamide 6 injection moulding grade with 30% carbon fibre reinforcement, for technical parts with high strength

| Properties | Test Conditions | Test Methods | Units | Dry as moulded | conditioned 23° C, 50% r.H. |
|---|---|---|---|---|---|
| **Mechanical Properties** | | | | | |
| Modulus of Elasticity, tensile | 23° C, 1 mm/Min | ISO 527-1/2 | MPa | 25100 | 23000 |
| Yield Stress [1] | 23° C, 50 mm/Min | ISO 527-1/2 | MPa | * | * |
| Yield Strain [1] | 23° C, 50 mm/Min | ISO 527-1/2 | % | * | * |
| Nominal Stress at Break [1] | 23° C, 50 mm/Min | ISO 527-1/2 | % | * | * |
| Stress at Break [1] | 23° C, 5 mm/Min | ISO 527-1/2 | MPa | 250 | 230 |
| Strain at Break [1] | 23° C, 5 mm/Min | ISO 527-1/2 | % | 2,6 | 3,5 |
| Bending Strength [2] | 23° C | ISO 178 | MPa | - | - |
| Charpy Impact Strength, unnotched [2] | 23° C<br>-30° C | ISO 179/1eU<br>ISO 179/1eU | KJ/m2<br>KJ/m2 | 70<br>- | 80<br>- |
| Notched Charpy Impact Strength [2] | 23° C<br>-30° C | ISO 179/1eA<br>ISO 179/1eA | KJ/m2<br>KJ/m2 | 9<br>- | 12<br>- |
| Izod notched Impact Strength [2] | 23° C<br>-30° C | ISO 180/1A<br>ISO 180/1A | KJ/m2<br>KJ/m2 | -<br>- | -<br>- |
| **Thermal Properties** | | | | | |
| Melting Temperature [3] | 10 K/Min | ISO 3146 | °C | 222 | * |
| Temperature of Deflection under Load [4] | 0,45 MPa<br>1,8 MPa | ISO 75-1/2<br>ISO 75-1/2 | °C<br>°C | 215<br>205 | *<br>* |
| Coefficient of Linear Thermal Elongation [5] | längs<br>quer | DIN 53752<br>DIN 53752 | E-4/K<br>E-4/K | -<br>- | *<br>* |
| Maximum Service Temperature | some hours<br>20 000 h<br>50 % Decrease in Tensile Strength or Yield Stress | -<br>IEC 216 | °C<br>°C | 195<br>120 | *<br>* |
| Flammability [6] | 0,8 mm<br>1,6 mm | UL 94<br>UL 94 | Stufe<br>Stufe | HB<br>HB | *<br>* |
| Glow Wire Test | 0,75 mm / 1,6 mm<br>0,75 mm / 1,6 mm | GWIT<br>GWFI | IEC-60695-2-13<br>IEC-60695-2-13 | -<br>- | *<br>* |
| **Electric Properties** | | | | | |
| Relative Permittivity [7] | 1 MHz | IEC 250 | - | - | - |
| Dissipation Factor [7] | 1 MHz | IEC 250 | E-4 | - | - |
| Specific Volume Resistivity [7] | - | IEC 93 | Ohm cm | <=10 [3] | <=10 [3] |
| Specific Surface Resistivity [7] | - | IEC 93 | Ohm | - | - |
| Dielectric Strength [7] | - | IEC 243-1 | kV/mm | - | - |
| Comparative Tracking Index | - | IEC 112 | Stufe | <100 | * |
| **Other data** | | | | | |
| Water Absorption | 23° C, Saturation | ISO 62 | % | 6,5 | * |
| Moisture Absorption | 23° C, 50 % r.H. | ISO 62 | % | 1,8 | * |
| Density | 23° C | ISO 1183 | g/ccm | 1.31 | * |
| **Processing** | | | | | |
| Melt Temperature | - | - | °C | 270 – 290 | * |
| Tool Surface Temperature | - | - | °C | 80 – 90 | * |
| Drying Temperature | - | - | °C | 80 | * |
| Drying Time | - | - | h | 2 – 4 | |

HongRong Engineering Plastics Co.,Ltd.
Head Office Tel. +85-2-6957-5415
Research Center Tel.+188 1699 6168