

**Durethan® BKV20FN01 000000 DUS013**  
**PA6-GF18**

Envalior

| Rheological properties      | dry / cond | Unit | Test Standard   |
|-----------------------------|------------|------|-----------------|
| <b>ISO Data</b>             |            |      |                 |
| Molding shrinkage, parallel | 0.3 / *    | %    | ISO 294-4, 2577 |
| Molding shrinkage, normal   | 0.7 / *    | %    | ISO 294-4, 2577 |

| Mechanical Properties                   | dry / cond  | Unit  | Test Standard |
|-----------------------------------------|-------------|-------|---------------|
| <b>ISO Data</b>                         |             |       |               |
| Tensile Modulus                         | 8000 / 4600 | MPa   | ISO 527       |
| Stress at Break                         | 110 / 60    | MPa   | ISO 527       |
| Strain at Break                         | 2.8 / 6.5   | %     | ISO 527       |
| Impact Strength (Charpy), +23°C         | 48 / 50     | kJ/m² | ISO 179/1eU   |
| Notched Impact Strength (Charpy), +23°C | 10 / 10     | kJ/m² | ISO 179/1eA   |
| Notched Impact Strength (Charpy), -30°C | 10 / 10     | kJ/m² | ISO 179/1eA   |
| Flexural Modulus (23°C)                 | 7700 / 4600 | MPa   | ISO 178       |
| Flexural strength                       | 175 / 120   | MPa   | ISO 178       |
| Notched Impact Strength (Izod), 23°C    | 10 / 12     | kJ/m² | ISO 180/1A    |
| Impact Strength (Izod), 23°C            | 45 / 45     | kJ/m² | ISO 180/1U    |

| Thermal Properties                          | dry / cond | Unit  | Test Standard   |
|---------------------------------------------|------------|-------|-----------------|
| <b>ISO Data</b>                             |            |       |                 |
| Melting Temperature (10°C/min)              | 222 / *    | °C    | ISO 11357-1/-3  |
| Temp. of deflection under load (1.80 MPa)   | 200 / *    | °C    | ISO 75-1/-2     |
| Temp. of deflection under load (0.45 MPa)   | 218 / *    | °C    | ISO 75-1/-2     |
| Vicat softening temperature, 50°C/h 50N     | 205 / *    | °C    | ISO 306         |
| Coeff. of Linear Therm. Expansion, parallel | 30 / *     | E-6/K | ISO 11359-1/-2  |
| Coeff. of Linear Therm. Expansion, normal   | 90 / *     | E-6/K | ISO 11359-1/-2  |
| Burning Behav. at 1.5 mm Nom. Thickn.       | V-0 / *    | class | UL 94           |
| Thickness tested                            | 1.5 / *    | mm    | -               |
| Burning Behav. at thickness h               | V-0 / *    | class | UL 94           |
| Thickness tested                            | 0.8 / *    | mm    | -               |
| Burning Behav. 5V at Thickness h            | 5VA / *    | class | IEC 60695-11-20 |
| Thickness tested                            | 3.0 / *    | mm    | -               |
| Glow Wire (GWFI, Flammability Index)        | 960        | °C    | IEC 60695-2-12  |
| GWFI - thickness tested (1)                 | 0.75       | mm    | -               |
| Glow Wire (GWFI, Flammability Index)        | 960        | °C    | IEC 60695-2-12  |
| GWFI - thickness tested (2)                 | 1.5        | mm    | -               |
| Glow Wire (GWFI, Flammability Index)        | 960        | °C    | IEC 60695-2-12  |
| GWFI - thickness tested (3)                 | 3          | mm    | -               |
| Glow Wire Ignition Temperature              | 750        | °C    | IEC 60695-2-13  |
| GWIT - thickness tested (1)                 | 0.75       | mm    | -               |
| Glow Wire Ignition Temperature              | 750        | °C    | IEC 60695-2-13  |
| GWIT - thickness tested (2)                 | 1.5        | mm    | -               |
| Glow Wire Ignition Temperature              | 750        | °C    | IEC 60695-2-13  |
| GWIT - thickness tested (3)                 | 3          | mm    | -               |

| Electrical Properties      | dry / cond | Unit  | Test Standard |
|----------------------------|------------|-------|---------------|
| <b>ISO Data</b>            |            |       |               |
| Electric Strength          | 31 / -     | kV/mm | IEC 60243-1   |
| Comparative tracking index | 500 / -    | -     | IEC 60112     |

| Other Properties    | dry / cond | Unit  | Test Standard  |
|---------------------|------------|-------|----------------|
| <b>ISO Data</b>     |            |       |                |
| Water Absorption    | 5 / *      | %     | Sim. to ISO 62 |
| Humidity absorption | 1.5 / *    | %     | Sim. to ISO 62 |
| Density             | 1380 / -   | kg/m³ | ISO 1183       |

| Test specimen production            | Value | Unit | Test Standard |
|-------------------------------------|-------|------|---------------|
| <b>ISO Data</b>                     |       |      |               |
| Injection Molding, melt temperature | 260   | °C   | ISO 294       |
| Injection Molding, mold temperature | 80    | °C   | ISO 294       |

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| Processing Recommendation Injection Molding | Value     | Unit | Test Standard |
|---------------------------------------------|-----------|------|---------------|
| Pre-drying - Temperature                    | 80        | °C   | -             |
| Pre-drying - Time                           | 2 - 6     | h    | -             |
| Processing humidity                         | ≤0.07     | %    | -             |
| Melt temperature                            | 250 - 270 | °C   | -             |
| Mold temperature                            | 80 - 100  | °C   | -             |

**Characteristics**

**Processing**

Injection Molding

**Special Characteristics**

Flame retardant, Halogen-free