

# Vydyne® B 20 GF BK EST K1

polyamide 6



Vydyne B 20 GF BK EST K1 is standard flow, heat stabilized, 20% glass-fiber reinforced PA6 resin. Available in black, this product is also lubricated for improved machine feed and flow.

## General

|                       |                                     |                                                |                                   |
|-----------------------|-------------------------------------|------------------------------------------------|-----------------------------------|
| Regional Availability | • North America                     | • Europe                                       | • Asia Pacific                    |
| Additive              | • Heat Stabilizer                   | • Lubricant                                    |                                   |
| Features              | • Chemical Resistant<br>• Good Flow | • Gasoline Resistant<br>• High Heat Resistance | • General Purpose<br>• Lubricated |
| Appearance            | • Black                             |                                                |                                   |
| Forms                 | • Pellets                           |                                                |                                   |
| Processing Method     | • Injection Molding                 |                                                |                                   |

## Physical

|                             | dry  | cond. | Unit              | Test Standard |
|-----------------------------|------|-------|-------------------|---------------|
| Density                     | 1.28 | -     | g/cm <sup>3</sup> | ISO 1183      |
| Molding Shrinkage           |      |       |                   | ISO 294-4     |
| Across Flow : 23°C, 2.00 mm | 0.9  | *     | %                 |               |
| Flow : 23°C, 2.00 mm        | 0.5  | *     | %                 |               |
| Water Absorption            |      |       |                   | ISO 62        |
| Equilibrium, 23°C, 50% RH   | 2.3  | *     | %                 |               |

## Mechanical

|                              | dry  | cond. | Unit | Test Standard |
|------------------------------|------|-------|------|---------------|
| Tensile Modulus (23°C)       | 6700 | 4000  | MPa  | ISO 527-2     |
| Tensile Stress (Break, 23°C) | 141  | 81    | MPa  | ISO 527-2     |
| Tensile Strain (Break, 23°C) | 3.3  | 6.8   | %    | ISO 527-2     |

## Impact

|                                     | dry | cond. | Unit              | Test Standard |
|-------------------------------------|-----|-------|-------------------|---------------|
| Notched Izod Impact Strength, +23°C | 9   | 15    | kJ/m <sup>2</sup> | ISO 180/1A    |

## Thermal

|                             | dry | cond. | Unit | Test Standard |
|-----------------------------|-----|-------|------|---------------|
| Heat Deflection Temperature |     |       |      | ISO 75-2/A    |
| 1.80 MPa, Unannealed        | 205 | -     | °C   |               |
| 0.45 MPa, Unannealed        | 210 | -     | °C   |               |
| Melting Temperature         | 220 | *     | °C   | ISO 11357-3   |

## Electrical

|                                      | Value | Unit | Test Standard |
|--------------------------------------|-------|------|---------------|
| Comparative Tracking Index (3.00 mm) | 450   | V    | IEC 60112     |

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| Flammability | Value | Test Standard |
|--------------|-------|---------------|
| Flammability |       | UL 94         |
| 1.50 mm      | HB    |               |
| 3.00 mm      | HB    |               |

| Injection                     | Value     | Unit |
|-------------------------------|-----------|------|
| Drying Temperature            | 80 - 90   | °C   |
| Drying Time                   | ≥ 3       | h    |
| Rear Temperature              | 230 - 260 | °C   |
| Middle Temperature            | 230 - 260 | °C   |
| Front Temperature             | 230 - 260 | °C   |
| Nozzle temperature            | 230 - 260 | °C   |
| Processing (Melt) Temperature | 230 - 260 | °C   |
| Mold Temperature              | 80 - 90   | °C   |

