+135-3858-6433 (GuangDong)
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# Vydyne® R525H BK0201

## polyamide 66

Vydyne R525H BK0201 is a general purpose, 25% glass-filled, heat-stabilized, high viscosity PA66 based resin designed for injection molding applications. R525H BK0201 offers standard flow with a black surface finish and maintains the excellent resistance typical of PA66 in chemicals, machine and motor oils, solvents, and gasoline.

## General

| | | | |
|---|---|---|---|
| Regional Availability | • North America | • Europe | • Asia Pacific |
| Additive | • Heat Stabilizer | • Lubricant | |
| Features | • Antifreeze Resistant | • Chemical Resistant | • Fatigue Resistant |
| | • Gasoline Resistant | • Good Flow | • Heat Stabilized |
| | • Lubricated | • Solvent Resistant | |
| Agency Rating | • ASTM, D4066 PA012G25 | • ASTM, D6779 PA012G25 | |
| Automotive Specifications | • GM GMW16270 | • GM GMW3038P-PA66-GF25H | • GM GMW3038P-PA66-GF25J |
| | • Schaeffler S131001 | • Valeo NVB 15009 Class 2 | • Valeo PDT NVB 15009-2 |
| Appearance | • Black | | |
| Forms | • Pellets | | |
| Processing Method | • Injection Molding | | |

| Physical | dry | cond. | Unit | Test Standard |
|---|---|---|---|---|
| Density | 1.32 | - | g/cm³ | ISO 1183 |
| Molding Shrinkage | | | | ISO 294-4 |
| Across Flow : 23°C, 2.00 mm | 1.3 | * | % | |
| Flow : 23°C, 2.00 mm | 0.5 | * | % | |
| Water Absorption | | | | ISO 62 |
| 23°C, 24 hr | 1.4 | * | % | |
| Equilibrium, 23°C, 50% RH | 1.9 | * | % | |

| Mechanical | dry | cond. | Unit | Test Standard |
|---|---|---|---|---|
| Tensile Modulus (23°C) | 8600 | 5500 | MPa | ISO 527-2 |
| Tensile Stress (Break, 23°C) | 174 | 117 | MPa | ISO 527-2 |
| Tensile Strain (Break, 23°C) | 3 | 7 | % | ISO 527-2 |
| Flexural Modulus (23°C) | 8100 | 6200 | MPa | ISO 178 |
| Flexural Strength (23°C) | 232 | 160 | MPa | ISO 178 |
| Poisson's Ratio (23°C) | 0.4 | | - | ISO 527-2 |

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| Impact | dry | cond. | Unit | Test Standard |
|---|---|---|---|---|
| Charpy Notched Impact Strength | | | | ISO 179/1eA |
| +23°C | 9 | 9 | kJ/m² | |
| -30°C | 8 | 8 | kJ/m² | |
| -40°C | 8 | 8 | kJ/m² | |
| Charpy Unnotched Impact Strength | | | | ISO 179/1eU |
| +23°C | 59 | 69 | kJ/m² | |
| -30°C | 56 | 56 | kJ/m² | |
| -40°C | 52 | 52 | kJ/m² | |
| Notched Izod Impact Strength | | | | ISO 180/1A |
| +23°C | 8 | 9 | kJ/m² | |
| -30°C | 7 | 8 | kJ/m² | |
| -40°C | 7 | 8 | kJ/m² | |

| Thermal | dry | cond. | Unit | Test Standard |
|---|---|---|---|---|
| Heat Deflection Temperature | | | | ISO 75-2/A |
| 1.80 MPa, Unannealed | 244 | 241 | °C | |
| 0.45 MPa, Unannealed | 259 | 260 | °C | |
| Melting Temperature | 262 | * | °C | ISO 11357-3 |
| CLTE | | | | ISO 11359-2 |
| Flow : 23 to 55°C, 2.00 mm | 26 | * | E-6/K | |
| Transverse : 23 to 55°C, 2.00 mm | 76 | * | E-6/K | |
| RTI Elec | | | | UL 746 |
| 0.750 mm | 140 | | °C | |
| 1.50 mm | 140 | | °C | |
| 3.00 mm | 140 | | °C | |
| RTI Imp | | | | UL 746 |
| 0.750 mm | 120 | | °C | |
| 1.50mm | 120 | | °C | |
| 3.00 mm | 120 | | °C | |
| RTI Str | | | | UL 746 |
| 0.750 mm | 125 | | °C | |
| 1.50 mm | 140 | | °C | |
| 3.00 mm | 140 | | °C | |

| Electrical | dry | cond. | Unit | Test Standard |
|---|---|---|---|---|
| Volume Resistivity (1.00 mm) | 1E11 | - | Ohm*m | IEC 60093 |
| Dielectric Strength (1.00 mm) | 20 | - | kV/mm | IEC 60243 |
| Arc Resistance (3.00 mm) | 6 | | - | ASTM D 495 |

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| | | | |
|---|---|---|---|
| High Amp Arc Ignition (HAI) | | | UL 746 |
| 0.750 mm | PLC 0 | - | |
| 1.50 mm | PLC 0 | - | |
| 3.00 mm | PLC 0 | - | |
| High Voltage Arc Tracking Rate (HVTR), 3.00 mm | PLC 1 | - | UL 746 |
| Hot-wire Ignition (HWI) | | | UL 746 |
| 0.400 mm | PLC 4 | - | |
| 0.750 mm | PLC 3 | - | |
| 1.50 mm | PLC 4 | - | |

| Flammability | Value | Unit | Test Standard |
|---|---|---|---|
| Burning Rate, 2.00 mm | | mm/min | ISO 3795 |
| Flammability | | | UL 94 |
| 0.750 mm | HB | - | |
| 1.50 mm | HB | - | |
| 3.00 mm | HB | - | |
| Glow Wire Flammability Index | | | IEC 60695-2-12 |
| 0.400 mm | 675 | °C | |
| 0.750 mm | 675 | °C | |
| 1.50 mm | 675 | °C | |
| Glow Wire Ignition Temperature | | | IEC 60695-2-13 |
| 0.400 mm | 700 | °C | |
| 0.750 mm | 700 | °C | |
| 1.50 mm | 700 | °C | |

| Injection | Value | Unit |
|---|---|---|
| Drying Temperature | 80 | °C |
| Drying Time | 4 | h |
| Rear Temperature | 280 - 310 | °C |
| Middle Temperature | 280 - 310 | °C |
| Front Temperature | 280 - 310 | °C |
| Nozzle temperature | 280 - 310 | °C |
| Processing (Melt) Temperature | 285 - 305 | °C |
| Mold Temperature | 65 - 95 | °C |