

Vydyne® B40

 Ascend Performance Materials Operations LLC - *Polyamide 6*
General Information
Product Description

Vydyne B40 is high viscosity PA6 for extrusion applications.

General

| | |
|-------------------|---------------------------------|
| Material Status | • Commercial: Active |
| Availability | • Europe • North America |
| Additive | • Mold Release |
| Agency Ratings | • ISO 1043 PA6 |
| Appearance | • Natural Color |
| Forms | • Pellets |
| Processing Method | • Extrusion • Profile Extrusion |
| Resin ID | • PA6 |

Properties ¹

| Physical | Nominal Value | Unit | Test Method |
|--|---------------|-----------------------|-------------|
| Density | 1.13 | g/cm ³ | ISO 1183 |
| Water Absorption (Saturation, 73°F) | 10 | % | ISO 62 |
| Water Absorption (Equilibrium, 73°F, 50% RH) | 2.4 | % | ISO 62 |
| Mechanical | Nominal Value | Unit | Test Method |
| Tensile Modulus (73°F) | 450000 | psi | ISO 527-1 |
| Tensile Stress (Yield, 73°F) | 11600 | psi | ISO 527-2 |
| Tensile Strain (Yield, 73°F) | 4.0 | % | ISO 527-2 |
| Tensile Strain (Break, 73°F) | 15 | % | ISO 527-2 |
| Flexural Modulus (73°F) | 392000 | psi | ISO 178 |
| Flexural Stress (73°F) | 14500 | psi | ISO 178 |
| Impact | Nominal Value | Unit | Test Method |
| Charpy Notched Impact Strength | | | ISO 179/1eA |
| -22°F | 1.4 | ft·lb/in ² | |
| 73°F | 1.4 | ft·lb/in ² | |
| Charpy Unnotched Impact Strength | | | ISO 179/1eU |
| -22°F | No Break | | |
| 73°F | No Break | | |
| Notched Izod Impact Strength | | | ISO 180/1A |
| -40°F | 1.4 | ft·lb/in ² | |
| -22°F | 1.9 | ft·lb/in ² | |
| 73°F | 2.4 | ft·lb/in ² | |
| Unnotched Izod Impact Strength | | | ISO 180/1U |
| -22°F | 48 | ft·lb/in ² | |
| 73°F | 48 | ft·lb/in ² | |
| Thermal | Nominal Value | Unit | Test Method |
| RTI Elec | | | UL 746B |
| 0.030 in | 149 | °F | |
| 0.12 in | 149 | °F | |
| RTI Imp | | | UL 746B |
| 0.030 in | 149 | °F | |
| 0.12 in | 149 | °F | |
| RTI Str | | | UL 746B |
| 0.030 in | 149 | °F | |



| | | |
|---------------------|----------------------|-------------|
| 0.12 in | 149 °F | |
| Flammability | Nominal Value | Unit |
| Flame Rating | | Test Method |
| 0.030 in | HB | UL 94 |
| 0.12 in | HB | |

Processing Information

| Injection | Nominal Value | Unit |
|------------------------|----------------------|-------------|
| Drying Temperature | 176 | °F |
| Drying Time | 4.0 | hr |
| Suggested Max Moisture | 0.20 | % |
| Rear Temperature | 446 to 464 | °F |
| Middle Temperature | 464 to 482 | °F |
| Front Temperature | 482 to 500 | °F |
| Processing (Melt) Temp | 482 to 500 | °F |
| Mold Temperature | 140 to 176 | °F |

Notes

¹ Typical properties: these are not to be construed as specifications.

