

Technical Data

Product Description

VAMPAMID 66 2530 V0 P60 PA66 resin 25% glass fiber reinforced, flame retarded with red phosphorus for injection moulding

Generic Nylon 66 - Glass Fiber

This data represents typical values that have been calculated from all products classified as: Generic Nylon 66 - Glass Fiber

This information is provided for comparative purposes only.

| General | VAMPAMID 66 2530 V0 P60 | Generic Nylon 66 - Glass Fiber |
|-----------------------------|--|--|
| Manufacturer / Supplier | <ul style="list-style-type: none"> Vamp Tech | <ul style="list-style-type: none"> Generic |
| Generic Symbol | <ul style="list-style-type: none"> Nylon 66 | <ul style="list-style-type: none"> Nylon 66 |
| Material Status | <ul style="list-style-type: none"> Commercial: Active | <ul style="list-style-type: none"> Commercial: Active |
| UL Yellow Card ¹ | <ul style="list-style-type: none"> E140692-223037 E140692-223036 | -- |
| Search for UL Yellow Card | <ul style="list-style-type: none"> Vamp Tech VAMPAMID | -- |
| Availability | <ul style="list-style-type: none"> Africa & Middle East Asia Pacific Europe Latin America North America | <ul style="list-style-type: none"> Africa & Middle East Asia Pacific Europe Latin America North America |
| Filler / Reinforcement | <ul style="list-style-type: none"> Glass Fiber, 25% Filler by Weight | <ul style="list-style-type: none"> Glass Fiber |
| Features | <ul style="list-style-type: none"> Flame Retardant | -- |
| Processing Method | <ul style="list-style-type: none"> Injection Molding | -- |
| Also Available In | -- | <ul style="list-style-type: none"> Asia Pacific Europe Latin America North America |

| Physical | VAMPAMID 66 2530 V0 P60 | Generic Nylon 66 - Glass Fiber | Unit | Test Method |
|--|-------------------------|--------------------------------|------------------------|-----------------------|
| Density / Specific Gravity | -- | 1.18 to 1.58 | | ASTM D792 |
| | 1.34 | 1.19 to 1.58 | g/cm ³ | ISO 1183 |
| | -- | 0.0492 | lb/in ³ | ISO 1183 ³ |
| Apparent (Bulk) Density | -- | 0.70 to 0.71 | g/cm ³ | ISO 60 |
| Melt Mass-Flow Rate (MFR) | | | | |
| 275°C/2.16 kg | -- | 6.0 to 31 | g/10 min | ASTM D1238 |
| 275°C/0.325 kg | -- | 1.0 to 3.1 | g/10 min | ISO 1133 |
| Melt Volume-Flow Rate (MVR) (275°C/5.0 kg) | -- | 10 to 51 | cm ³ /10min | ISO 1133 |
| Spiral Flow | -- | 2.87 to 20.5 | in | |
| Molding Shrinkage | | | | |
| Flow | 6.0E-3 | 1.0E-3 to 0.064 | in/in | ASTM D955 |
| Across Flow | 0.010 | 3.5E-3 to 0.020 | in/in | ASTM D955 |
| -- | -- | 3.0E-3 to 1.2 | % | ISO 294-4 |



| Physical | VAMPAMID 66 2530 V0 P60 | Generic Nylon 66 - Glass Fiber | Unit | Test Method |
|--------------------------------------|----------------------------|-----------------------------------|--------------------|----------------------------------|
| Water Absorption | | | | |
| 24 hr | -- | 0.23 to 1.0 | % | ASTM D570 |
| 24 hr, 73°F | 0.90 | -- | % | ASTM D570 |
| 24 hr, 73°F | -- | 0.23 to 1.1 | % | ISO 62 |
| Saturation | -- | 0.010 to 6.1 | % | ASTM D570 |
| Saturation, 73°F | -- | 3.9 to 7.1 | % | ISO 62 |
| Saturation | -- | 5.5 | % | ISO 62 ³ |
| Equilibrium | -- | 0.79 to 2.2 | % | ASTM D570 |
| Equilibrium, 73°F, 50% RH | -- | 0.93 to 2.2 | % | ISO 62 |
| Equilibrium | -- | 1.6 | % | ISO 62 ³ |
| K-Value | -- | 75.9 to 76.1 | | ISO 1628-2 |
| Viscosity Number (Reduced Viscosity) | -- | 143.8 to 150.0 | ml/g | ISO 1628 |
| Viscosity Number | | | | |
| -- | -- | 128 to 151 | cm ³ /g | ISO 307 |
| -- | -- | 143 | cm ³ /g | ISO 307, 1157, 1628 ³ |
| Heat Stability | -- | 221 to 298 | °F | |
| Mechanical | VAMPAMID 66 2530 V0 P60 | Generic Nylon 66 - Glass Fiber | Unit | Test Method |
| Tensile Modulus | | | | |
| -- | -- | 619000 to 2.05E+6 | psi | ASTM D638 |
| -- | 1.16E+6 | 685000 to 1.70E+6 | psi | ISO 527-1 |
| -- | -- | 1.18E+6 | psi | ISO 527-2 ³ |
| Tensile Strength | | | | |
| Yield | -- | 11800 to 29700 | psi | ASTM D638 |
| Yield | -- | 10600 to 33900 | psi | ISO 527-2 |
| Break | -- | 11500 to 32000 | psi | ASTM D638 |
| Break | 16700 | 10100 to 35600 | psi | ISO 527-2 |
| Break | -- | 23200 | psi | ISO 527-2 ³ |
| Ultimate | -- | 16900 to 29000 | psi | ASTM D638 |
| -- | -- | 11900 to 33500 | psi | ASTM D638 |
| -- | -- | 7540 to 39800 | psi | ISO 527-2 |
| Tensile Elongation | | | | |
| Yield | -- | 1.9 to 3.6 | % | ASTM D638 |
| Yield | -- | 1.8 to 3.6 | % | ISO 527-2 |
| Break | -- | 1.0 to 700 | % | ASTM D638 |
| Break | 2.5 | 2.0 to 3.6 | % | ISO 527-2 |
| Break | -- | 2.5 to 3.1 | % | ISO 527-2 ³ |
| Flexural Modulus | | | | |
| -- | -- | 524000 to 1.72E+6 | psi | ASTM D790 |
| -- | -- | 584000 to 1.67E+6 | psi | ISO 178 |



| Mechanical | VAMPAMID 66 2530 V0 P60 | Generic Nylon 66 - Glass Fiber | Unit | Test Method |
|--|----------------------------|-----------------------------------|--|--------------------------|
| Flexural Strength | | | | |
| -- | -- | 16300 to 44600 | psi | ASTM D790 |
| -- | -- | 17700 to 55500 | psi | ISO 178 |
| Yield | -- | 19400 to 49000 | psi | ASTM D790 |
| Break | -- | 16000 to 49600 | psi | ASTM D790 |
| Compressive Strength | | | | |
| -- | -- | 2900 to 40000 | psi | ASTM D695 |
| -- | -- | 6240 to 38400 | psi | ISO 604 |
| Shear Strength | -- | 9930 to 15200 | psi | ASTM D732 |
| Poisson's Ratio | -- | 0.34 to 0.40 | | ASTM E132 |
| Coefficient of Friction | -- | 0.18 to 0.59 | | ASTM D1894 |
| Wear Factor | -- | 0.0 to 75 | 10 ⁻⁴ -10 in ³ ·min/ ft·lb·hr | ASTM D3702 |
| Impact | VAMPAMID 66 2530 V0 P60 | Generic Nylon 66 - Glass Fiber | Unit | Test Method |
| Charpy Notched Impact Strength | | | | |
| -- | -- | 2.7 to 7.2 | ft·lb/in ² | ISO 179 |
| -22°F | -- | 3.14 | ft·lb/in ² | ISO 179/1eA ³ |
| 73°F | -- | 3.75 | ft·lb/in ² | ISO 179/1eA ³ |
| Charpy Unnotched Impact Strength | | | | |
| -- | -- | 14 to 49 | ft·lb/in ² | ISO 179 |
| -22°F | -- | 28.6 | ft·lb/in ² | ISO 179/1eU ³ |
| 73°F | -- | 31.2 | ft·lb/in ² | ISO 179/1eU ³ |
| Notched Izod Impact | | | | |
| -- | -- | 0.67 to 3.1 | ft·lb/in | ASTM D256 |
| -- | -- | 1.0 to 7.6 | ft·lb/in ² | ISO 180 |
| -- | 3.8 | -- | ft·lb/in ² | ISO 180/A |
| Notched Izod Impact (Area) | -- | 2.68 to 8.65 | ft·lb/in ² | ASTM D256 |
| Unnotched Izod Impact | | | | |
| -- | -- | 6.5 to 30 | ft·lb/in | ASTM D4812 |
| -- | 21 | 14 to 43 | ft·lb/in ² | ISO 180 |
| Instrumented Dart Impact | | | | |
| -- | -- | 44.3 to 111 | in·lb | ASTM D3763 |
| -- | -- | 0.516 to 3.11 | ft·lb | ISO 6603-2 |
| Multi-Axial Instrumented Impact Peak Force | -- | 130 to 249 | lbf | ISO 6603-2 |
| Tensile Impact Strength | -- | 5.40 to 15.9 | ft·lb/in ² | ASTM D1822 |
| Hardness | VAMPAMID 66 2530 V0 P60 | Generic Nylon 66 - Glass Fiber | Unit | Test Method |
| Rockwell Hardness | | | | |
| -- | -- | 114 to 125 | | ASTM D785 |
| -- | -- | 95 to 122 | | ISO 2039-2 |
| Shore Hardness | -- | 78 to 81 | | ISO 868 |
| Ball Indentation Hardness | -- | 25800 to 47900 | psi | ISO 2039-1 |



| Thermal | VAMPAMID 66 2530 V0 P60 | Generic Nylon 66 - Glass Fiber | Unit | Test Method |
|--|----------------------------|-----------------------------------|-------------------------------|-----------------------|
| Deflection Temperature Under Load | | | | |
| 66 psi, Unannealed | -- | 480 to 502 | °F | ASTM D648 |
| 66 psi, Unannealed | -- | 477 to 506 | °F | ISO 75-2/B |
| 66 psi | -- | 482 | °F | ISO 75-2 ³ |
| 264 psi, Unannealed | 455 | 426 to 499 | °F | ASTM D648 |
| 264 psi, Unannealed | -- | 441 to 499 | °F | ISO 75-2/A |
| 264 psi, Annealed | -- | 454 to 491 | °F | ASTM D648 |
| 264 psi | -- | 482 | °F | ISO 75-2 ³ |
| 1160 psi, Unannealed | -- | 158 to 456 | °F | ISO 75-2/C |
| Continuous Use Temperature | | | | |
| -- | 248 | -- | °F | |
| -- | -- | 188 to 362 | °F | ASTM D794 |
| Glass Transition Temperature | | | | |
| -- | -- | 41.0 to 176 | °F | ISO 11357-2 |
| Vicat Softening Temperature | | | | |
| -- | -- | 444 to 501 | °F | ASTM D1525 |
| -- | -- | 438 to 491 | °F | ISO 306 |
| Melting Temperature | | | | |
| -- | -- | 488 to 511 | °F | |
| -- | -- | 499 to 509 | °F | DSC |
| -- | -- | 500 to 507 | °F | ISO 11357-3 |
| -- | -- | 488 to 501 | °F | ASTM D3418 |
| -- | -- | 499 to 501 | °F | ISO 3146 |
| CLTE | | | | |
| Flow | -- | 9.2E-6 to 4.4E-5 | in/in/°F | ASTM D696 |
| Flow | -- | 5.0E-6 to 2.4E-5 | in/in/°F | ASTM E831 |
| Flow | -- | 6.6E-6 to 2.3E-5 | in/in/°F | ISO 11359-2 |
| Transverse | -- | 5.6E-7 to 5.5E-5 | in/in/°F | ASTM D696 |
| Transverse | -- | 2.1E-5 to 4.4E-5 | in/in/°F | ASTM E831 |
| Transverse | -- | 3.1E-5 to 6.4E-5 | in/in/°F | ISO 11359-2 |
| Specific Heat | | | | |
| -- | -- | 0.297 to 0.478 | Btu/lb/°F | ASTM C351 |
| Thermal Conductivity | | | | |
| -- | -- | 1.3 to 4.0 | Btu·in/hr/ft ² /°F | ASTM C177 |
| -- | -- | 1.4 to 2.7 | Btu·in/hr/ft ² /°F | ISO 8302 |
| RTI Elec | | | | |
| -- | -- | 149 to 287 | °F | UL 746B |
| RTI Imp | | | | |
| -- | -- | 149 to 267 | °F | UL 746B |
| RTI Str | | | | |
| -- | -- | 149 to 287 | °F | UL 746B |
| Electrical | VAMPAMID 66 2530 V0 P60 | Generic Nylon 66 - Glass Fiber | Unit | Test Method |
| Surface Resistivity | | | | |
| -- | -- | 10 to 2.5E+15 | ohms | ASTM D257 |
| -- | -- | 20 to 2.5E+15 | ohms | IEC 60093 |
| -- | -- | 1.0E+2 to 6.0E+15 | ohms | IEC 62631-3-2 |



| Electrical | VAMPAMID 66 2530 V0 P60 | Generic Nylon 66 - Glass Fiber | Unit | Test Method |
|----------------------------------|------------------------------------|---|-------------------|------------------------|
| Volume Resistivity | | | | |
| -- | -- | 1.0E+2 to 2.5E+16 | ohms-cm | ASTM D257 |
| -- | -- | 10 to 7.5E+15 | ohms-cm | IEC 60093 |
| -- | -- | 1.0E+9 to 1.3E+15 | ohms-m | IEC 62631-3-1 |
| Dielectric Strength | | | | |
| -- | -- | 420 to 640 | V/mil | ASTM D149 |
| -- | -- | 460 to 1200 | V/mil | IEC 60243-1 |
| Dielectric Constant | | | | |
| -- | -- | 2.91 to 4.09 | | ASTM D150 |
| -- | -- | 3.47 to 4.11 | | IEC 60250 |
| -- | -- | 3.69 | | IEC 60250 |
| -- | -- | 3.75 | | IEC 62631-2-1 |
| Dissipation Factor | | | | |
| -- | -- | 0.010 to 0.021 | | ASTM D150 |
| -- | -- | 6.8E-3 to 0.021 | | IEC 60250 |
| -- | -- | 9.0E-3 to 0.017 | | IEC 62631-2-1 |
| 1 MHz | -- | 0.018 | | IEC 60250 ³ |
| Arc Resistance | -- | 63.5 to 130 | sec | ASTM D495 |
| Comparative Tracking Index (CTI) | -- | 540 to 600 | V | UL 746A |
| Comparative Tracking Index | | | | |
| -- | 600 | 400 to 600 | V | IEC 60112 |
| -- | -- | 500 | | IEC 60112 ³ |
| Flammability | VAMPAMID 66 2530 V0 P60 | Generic Nylon 66 - Glass Fiber | Unit | Test Method |
| Burning Rate | -- | 0.0 to 4.0 | in/min | ISO 3795 |
| Flame Rating | | | | UL 94 |
| 0.06 in | V-0 | -- | | |
| 0.13 in | V-0 | -- | | |
| Glow Wire Flammability Index | | | | IEC 60695-2-12 |
| -- | -- | 1200 to 1760 | °F | |
| 0.04 to 0.08 in | 1760 | -- | °F | |
| Glow Wire Ignition Temperature | -- | 1200 to 1760 | °F | IEC 60695-2-13 |
| Oxygen Index | | | | |
| -- | -- | 25 to 34 | % | ASTM D2863 |
| -- | -- | 23 to 27 | % | ISO 4589-2 |
| Fill Analysis | VAMPAMID 66 2530 V0 P60 | Generic Nylon 66 - Glass Fiber | Unit | |
| Melt Density | -- | 1.12 to 1.28 | g/cm ³ | |
| Ejection Temperature | -- | 410 | °F | |
| Injection | VAMPAMID 66 2530 V0 P60 | Generic Nylon 66 - Glass Fiber | Unit | |
| Drying Temperature | 194 | 172 to 180 | °F | |
| Drying Time | 3.0 | 2.8 to 5.3 | hr | |
| Drying Time, Maximum | -- | 8.0 | hr | |
| Dew Point | -- | -1 to 0 | °F | |



| Injection | VAMPAMID 66 2530 V0 P60 | Generic Nylon 66 - Glass Fiber | Unit |
|----------------------------|----------------------------|-----------------------------------|------|
| Suggested Max Moisture | -- | 2.0E-3 to 0.63 | % |
| Suggested Shot Size | -- | 50 | % |
| Suggested Max Regrind | -- | 25 | % |
| Hopper Temperature | -- | 158 to 167 | °F |
| Rear Temperature | -- | 507 to 552 | °F |
| Middle Temperature | -- | 514 to 563 | °F |
| Front Temperature | -- | 517 to 572 | °F |
| Nozzle Temperature | -- | 516 to 577 | °F |
| Processing (Melt) Temp | 527 | 513 to 566 | °F |
| Melt Temperature (Optimum) | -- | 535 | °F |
| Mold Temperature | 194 | 158 to 217 | °F |
| Injection Pressure | -- | 1000 to 14400 | psi |
| Holding Pressure | -- | 8610 to 10900 | psi |
| Back Pressure | -- | 21.3 to 256 | psi |
| Screw Speed | -- | 38 to 83 | rpm |
| Cushion | -- | 0.184 to 0.375 | in |
| Vent Depth | -- | 7.5E-4 to 2.3E-3 | in |

Injection Notes

Generic Nylon 66 - Glass Fiber

This data represents typical values that have been calculated from all products classified as: Generic Nylon 66 - Glass Fiber

This information is provided for comparative purposes only.

Notes

¹ A UL Yellow Card contains UL-verified flammability and electrical characteristics. UL Prospector continually works to link Yellow Cards to individual plastic materials in Prospector, however this list may not include all of the appropriate links. It is important that you verify the association between these Yellow Cards and the plastic material found in Prospector. For a complete listing of Yellow Cards, visit the UL Yellow Card Search.

² Typical properties: these are not to be construed as specifications.

³ Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.

