# TECHNYL® A 218 V33 BLACK 51

Polyamide 66

Solvay Engineering Plastics

## Message:

TECHNYL® A 218 V33 Black 51 is a polyamide 66, reinforced with 33% of glass fibre, heat stabilized, for injection moulding. This grade offers an excellent combination between thermal and mechanical properties.

| General Information | |
|---|---|
| UL YellowCard | E44716-235569 |
| Filler / Reinforcement | Glass fiber reinforced material, 33% filler by weight |
| Additive | heat stabilizer |
| Features | Heat Stabilized - Inorganic<br>Good dimensional stability<br>Good liquidity<br>Good demoulding performance |
| Uses | Power/other tools<br>Application in Automobile Field |
| Agency Ratings | UL QMFZ2 |
| RoHS Compliance | RoHS compliance |
| Appearance | Black<br>Natural color |
| Forms | Particle |
| Processing Method | Injection molding |
| Multi-Point Data | Isothermal Stress vs. Strain (ISO 11403-1) |
| Resin ID (ISO 1043) | PA66-G33 |

| Physical | Dry | Conditioned | Unit | Test Method |
|---|---|---|---|---|
| Density | 1.39 | -- | g/cm³ | ISO 1183/A |
| Water Absorption | | | | ISO 62 |
| 23°C, 24 hr | 0.78 | -- | % | ISO 62 |
| Saturated, 23°C | 5.5 | -- | % | ISO 62 |
| Equilibrium, 23°C, 50% RH | 1.6 | -- | % | ISO 62 |

| Mechanical | Dry | Conditioned | Unit | Test Method |
|---|---|---|---|---|
| Tensile Modulus (23°C) | 11300 | 7700 | MPa | ISO 527-2/1A |
| Tensile Stress (Break, 23°C) | 200 | 135 | MPa | ISO 527-2/1A |
| Tensile Strain (Break, 23°C) | 3.0 | 5.0 | % | ISO 527-2 |

| Impact | Dry | Conditioned | Unit | Test Method |
|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| Charpy Notched Impact Strength (23°C) | 12 | 16 | kJ/m² | ISO 179/1eA |
| Charpy Unnotched Impact Strength (23°C) | 85 | 94 | kJ/m² | ISO 179/1eU |
| Notched Izod Impact (23°C) | 13 | 17 | kJ/m² | ISO 180 |
| Thermal | Dry | Conditioned | Unit | Test Method |
| Heat Deflection Temperature (1.8 MPa, Unannealed) | 250 | -- | °C | ISO 75-2/Af |
| Melting Temperature | 262 | -- | °C | ISO 11357-3 |
| Injection | Dry | Unit | | |
| Drying Temperature | 80 | | °C | |
| Suggested Max Moisture | 0.20 | | % | |
| Rear Temperature | 270 - 280 | | °C | |
| Middle Temperature | 275 - 285 | | °C | |
| Front Temperature | 280 - 290 | | °C | |
| Mold Temperature | 70 - 100 | | °C | |

Injection instructions

The material is supplied in airtight bags, ready for use. In case that the virgin material has absorbed moisture, it must be dried with a dehumidified air drying equipment, dew point mini -20°C. Recommended time 2-4hInjection Advice:
For reinforced polyamide, Solvay recommends the use of steel with a high content of Carbon and purified for polishing to avoid or limit the abrasion. For example: X38CrMoV5-1 (EN Norm) - 1.2367 /1.2343 (DIN Norm) or X160CrMoV12 (EN Norm) - 1.2601 /1.2379 (DIN Norm). For Mould Temperature, in the case of parts where the surface roughness is required we can recommend a temperature of 90°C to 120°C with an optimum at 105°C.
The processing parameters like processing temperatures are a recommendation and can be adjusted in function of injection machine size, part geometry / design



## Recommended distributors for this material

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