

# TECHNYL® A 218 V25 NATURAL

Polyamide 66  
Solvay Engineering Plastics

Message:

TECHNYL® A 218 V25 NATURAL is a Polyamide 66 (Nylon 66) material filled with 25% glass fiber. It is available in Africa & Middle East, Asia Pacific, Europe, or Latin America for injection molding.

Important attributes of TECHNYL® A 218 V25 NATURAL are:

Flame Rated  
RoHS Compliant  
Heat Stabilizer

Typical application of TECHNYL® A 218 V25 NATURAL: Automotive

| General Information            |       |                                            |                   |                       |
|--------------------------------|-------|--------------------------------------------|-------------------|-----------------------|
| UL YellowCard                  |       | E44716-235569                              |                   |                       |
| Filler / Reinforcement         |       | Glass Fiber,25% Filler by Weight           |                   |                       |
| Additive                       |       | Heat Stabilizer                            |                   |                       |
| Features                       |       | Heat Stabilized                            |                   |                       |
| Agency Ratings                 |       | UU 453/2010/EC                             |                   |                       |
| RoHS Compliance                |       | RoHS Compliant                             |                   |                       |
| Appearance                     |       | Natural Color                              |                   |                       |
| Processing Method              |       | Injection Molding                          |                   |                       |
| Multi-Point Data               |       | Isothermal Stress vs. Strain (ISO 11403-1) |                   |                       |
|                                |       | Secant Modulus vs. Strain (ISO 11403-1)    |                   |                       |
|                                |       | Viscosity vs. Shear Rate (ISO 11403-2)     |                   |                       |
| Part Marking Code (ISO 11469)  |       | >PA66-GF25<                                |                   |                       |
| Physical                       | Dry   | Conditioned                                | Unit              | Test Method           |
| Specific Gravity               | 1.32  | --                                         | g/cm <sup>3</sup> | ASTM D792, ISO 1183/A |
| Molding Shrinkage              |       |                                            |                   | Internal Method       |
| Across Flow                    | 0.85  | --                                         | %                 |                       |
| Flow                           | 0.60  | --                                         | %                 |                       |
| Water Absorption (23°C, 24 hr) | 0.90  | --                                         | %                 | ISO 62                |
| Molding Shrinkage Isotropy     | 0.700 | --                                         |                   | Internal Method       |
| Mechanical                     | Dry   | Conditioned                                | Unit              | Test Method           |
| Tensile Modulus                | 8400  | 6300                                       | MPa               | ISO 527-2/1A          |
| Tensile Stress (Break)         | 165   | 120                                        | MPa               | ISO 527-2/1A          |
| Tensile Elongation             |       |                                            |                   |                       |
| Break                          | 4.0   | --                                         | %                 | ASTM D638             |
| Break                          | 3.0   | 4.0                                        | %                 | ISO 527-2/1A          |
| Flexural Modulus               |       |                                            |                   |                       |
| --                             | 7300  | --                                         | MPa               | ASTM D790             |

|                                         |             |             |                   |                |
|-----------------------------------------|-------------|-------------|-------------------|----------------|
| --                                      | 7300        | 5000        | MPa               | ISO 178        |
| Flexural Stress                         | 250         | --          | MPa               | ISO 178        |
| Impact                                  | Dry         | Conditioned | Unit              | Test Method    |
| Charpy Notched Impact Strength (23°C)   | 10          | 13          | kJ/m <sup>2</sup> | ISO 179/1eA    |
| Charpy Unnotched Impact Strength (23°C) | 57          | 87          | kJ/m <sup>2</sup> | ISO 179/1eU    |
| Notched Izod Impact                     |             |             |                   |                |
| 23°C                                    | 80          | --          | J/m               | ASTM D256      |
| 23°C                                    | 8.5         | 15          | kJ/m <sup>2</sup> | ISO 180/1A     |
| Thermal                                 | Dry         | Conditioned | Unit              | Test Method    |
| Deflection Temperature Under Load       |             |             |                   |                |
| 1.8 MPa, Unannealed                     | 245         | --          | °C                | ASTM D648      |
| 1.8 MPa, Unannealed                     | 255         | --          | °C                | ISO 75-2/Af    |
| Melting Temperature                     | 263         | --          | °C                | ISO 11357-3    |
| CLTE                                    |             |             |                   | ISO 11359-2    |
| Flow : 23 to 85°C                       | 2.7E-5      | --          | cm/cm/°C          |                |
| Transverse : 23 to 85°C                 | 2.7E-5      | --          | cm/cm/°C          |                |
| Electrical                              | Dry         | Conditioned | Unit              | Test Method    |
| Surface Resistivity                     | 6.0E+14     | 1.0E+12     | ohms              | IEC 60093      |
| Volume Resistivity                      | 1.0E+15     | 1.0E+13     | ohms·cm           | IEC 60093      |
| Electric Strength                       | 32          | 28          | kV/mm             | IEC 60243-1    |
| Relative Permittivity                   | 3.70        | 4.00        |                   | IEC 60250      |
| Dissipation Factor                      | 0.010       | 0.11        |                   | IEC 60250      |
| Comparative Tracking Index (Solution A) | 600         | 600         | V                 | IEC 60112      |
| Flammability                            | Dry         | Conditioned | Unit              | Test Method    |
| Flame Rating                            |             |             |                   | UL 94          |
| 0.380 mm                                | HB          | --          |                   |                |
| 0.800 mm                                | HB          | --          |                   |                |
| 1.60 mm                                 | HB          | --          |                   |                |
| 3.20 mm                                 | HB          | --          |                   |                |
| Glow Wire Flammability Index (1.60 mm)  | 650         | --          | °C                | IEC 60695-2-12 |
| Oxygen Index                            | 23          | --          | %                 | ISO 4589-2     |
| Injection                               | Dry         | Unit        |                   |                |
| Drying Temperature                      | 80.0        |             | °C                |                |
| Suggested Max Moisture                  | 0.20        |             | %                 |                |
| Rear Temperature                        | 265 to 275  |             | °C                |                |
| Middle Temperature                      | 270 to 280  |             | °C                |                |
| Front Temperature                       | 280 to 290  |             | °C                |                |
| Mold Temperature                        | 70.0 to 100 |             | °C                |                |

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection.All rights belong to the original authors. If any infringement occurs, please contact us immediately.

Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519  
Phone: +86 13424755533  
Email: sales@su-jiao.com  
No. 215, Lianhe North Road, Fengxian District, Shanghai, China

