

# VENYL UG100 - 7821

Polyamide 66

AD majoris

Message:

VENYL UG100 - 7821 is a 10 % glass fibre reinforced polyamide 66 intended for Injection moulding.

APPLICATIONS

VENYL UG100 - 7821 has been developed especially for very demanding applications in automotive industry and electrical parts requiring excellent combination between thermal and mechanical properties.

VENYL UG100 - 7821 is available in natural (VENYL UG108) but other colours can be provided on request.

| General Information                             |             |                                  |                   |             |
|-------------------------------------------------|-------------|----------------------------------|-------------------|-------------|
| Filler / Reinforcement                          |             | Glass Fiber,10% Filler by Weight |                   |             |
| Features                                        |             | Recyclable Material              |                   |             |
| Uses                                            |             | Automotive Applications          |                   |             |
|                                                 |             | Electrical Parts                 |                   |             |
| Appearance                                      |             | Colors Available                 |                   |             |
|                                                 |             | Natural Color                    |                   |             |
| Forms                                           |             | Pellets                          |                   |             |
| Processing Method                               |             | Injection Molding                |                   |             |
| Physical                                        | Dry         | Conditioned                      | Unit              | Test Method |
| Density                                         | 1.21        | --                               | g/cm <sup>3</sup> | ISO 1183    |
| Molding Shrinkage                               | 0.90 to 1.3 | --                               | %                 |             |
| Water Absorption<br>(Equilibrium, 23°C, 50% RH) | 2.0         | --                               | %                 |             |
| Hardness                                        | Dry         | Conditioned                      | Unit              | Test Method |
| Rockwell Hardness<br>(L-Scale)                  | 107         | 95                               |                   | ASTM D785   |
| Mechanical                                      | Dry         | Conditioned                      | Unit              | Test Method |
| Tensile Modulus                                 | 5000        | 3800                             | MPa               | ISO 527-2   |
| Tensile Stress (Break)                          | 100         | 70.0                             | MPa               | ISO 527-2   |
| Tensile Strain (Break)                          | 4.0         | 10                               | %                 | ISO 527-2   |
| Flexural Modulus                                | 4500        | 2300                             | MPa               | ISO 178     |
| Flexural Stress                                 | 160         | 130                              | MPa               | ISO 178     |
| Impact                                          | Dry         | Conditioned                      | Unit              | Test Method |
| Charpy Notched Impact<br>Strength               | 5.0         | 11                               | kJ/m <sup>2</sup> | ISO 179     |
| Charpy Unnotched Impact<br>Strength             | 20          | 30                               | kJ/m <sup>2</sup> | ISO 179     |
| Notched Izod Impact                             | 70          | 100                              | J/m               | ISO 180     |
| Thermal                                         | Dry         | Conditioned                      | Unit              | Test Method |

|                                         |                      |             |         |                |
|-----------------------------------------|----------------------|-------------|---------|----------------|
| Heat Deflection Temperature             |                      |             |         |                |
| 0.45 MPa, Unannealed                    | 240                  | --          | °C      | ISO 75-2/B     |
| 1.8 MPa, Unannealed                     | 220                  | --          | °C      | ISO 75-2/A     |
| Melting Temperature (DSC)               | 256                  | --          | °C      | ISO 3146       |
| Electrical                              | Dry                  | Conditioned | Unit    | Test Method    |
| Surface Resistivity                     | 1.0E+13              | 1.0E+11     | ohms    | DIN 53482      |
| Volume Resistivity                      | 1.0E+14              | 1.0E+12     | ohms·cm | DIN 53482      |
| Comparative Tracking Index (Solution A) | 600                  | --          | V       | IEC 60112      |
| Flammability                            | Dry                  | Conditioned | Unit    | Test Method    |
| Flame Rating (1.60 mm)                  | HB                   | --          |         | UL 94          |
| Glow Wire Flammability Index (2.00 mm)  | 650                  | --          | °C      | IEC 60695-2-12 |
| Oxygen Index                            | 25                   | --          | %       | ISO 4589-2     |
| Injection                               | Dry                  | Unit        |         |                |
| Rear Temperature                        | 285 to 300           |             | °C      |                |
| Middle Temperature                      | 280 to 295           |             | °C      |                |
| Front Temperature                       | 275 to 290           |             | °C      |                |
| Nozzle Temperature                      | 265 to 280           |             | °C      |                |
| Mold Temperature                        | 90.0 to 120          |             | °C      |                |
| Injection Pressure                      | 85.0 to 110          |             | MPa     |                |
| Injection Rate                          | Fast                 |             |         |                |
| Holding Pressure                        | 50.0 to 70.0         |             | MPa     |                |
| Screw L/D Ratio                         | 15.0:1.0 to 20.0:1.0 |             |         |                |

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



WECHAT