# Miramid® VE15C

### Polyamide 6

#### BASF Leuna GmbH

#### Message:

Miramid® VE15C is a Polyamide 6 (Nylon 6) material filled with 15% glass fiber. It is available in Europe for injection molding. Important attributes of Miramid® VE15C are:

**Chemical Resistant** 

Crystalline

Fast Molding Cycle

**Good Stiffness** 

Mold Release Agent

Typical applications include:

Automotive

Engineering/Industrial Parts

**Coating Applications** 

**Construction Applications** 

Electrical/Electronic Applications

| General Information    |  |  |  |
|------------------------|--|--|--|
| Filler / Reinforcement | Glass Fiber,15% Filler by Weight           |  |  |
| Additive               | Mold Release                               |  |  |
| Features               | Crystalline                                |  |  |
|                        | Fast Molding Cycle                         |  |  |
|                        | Fuel Resistant                             |  |  |
|                        | Good Flow                                  |  |  |
|                        | Good Stability                             |  |  |
|                        | Good Stiffness                             |  |  |
|                        | Grease Resistant                           |  |  |
|                        | High Rigidity                              |  |  |
|                        | Oil Resistant                              |  |  |
|                        | Solvent Resistant                          |  |  |
|                        |  |  |  |
| Uses                   | Automotive Applications                    |  |  |
|                        | Building Materials                         |  |  |
|                        | Electrical/Electronic Applications         |  |  |
|                        | Engineering Parts                          |  |  |
|                        | Machine/Mechanical Parts                   |  |  |
|                        | Protective Coverings                       |  |  |
|                        | Sporting Goods                             |  |  |
|                        |  |  |  |
| Forms                  | Granules                                   |  |  |
| Processing Method      | Injection Molding                          |  |  |
| Multi-Point Data       | Isothermal Stress vs. Strain (ISO 11403-1) |  |  |
|                        | Secant Modulus vs. Strain (ISO 11403-1)    |  |  |

| Physical                             | Dry  | Conditioned | Unit   | Test Method                      |
|--------------------------------------|--|-------------|--------|----------------------------------|
| Density                              | 1230   |             | kg/m³  | ISO 1183 <sup>1</sup>            |
| Water Absorption                     |  |             |        | ISO 62 <sup>2</sup>              |
| Saturation                           | 8.5  |             | %      |                                  |
| Equilibrium                          | 2.0  |             | %      |                                  |
| Viscosity number                     | 145  |             | cm³/g  | ISO 307, 1157, 1628 <sup>3</sup> |
| Mechanical                           | Dry  | Conditioned | Unit   | Test Method                      |
| Tensile modulus                      | 5500   | 3200        | MPa    | ISO 527-2 <sup>4</sup>           |
| Tensile Stress (Break)               | 125  | 75.0        | MPa    | ISO 527-2 <sup>5</sup>           |
| Tensile Strain (Break)               | 3.0  | 11          | %      | ISO 527-2 <sup>6</sup>           |
| Flexural Modulus                     | 190  | 100         | MPa    | ISO 178                          |
| Impact                               | Dry  | Conditioned | Unit   | Test Method                      |
| Charpy notched impact strength       |  |             |        | ISO 179/1eA <sup>7</sup>         |
| -30°C                                | 6.00   |             | kJ/m²  |                                  |
| 23°C                                 | 7.00   | 11.0        | kJ/m²  |                                  |
| Charpy impact strength               |  |             |        | ISO 179/1eU <sup>8</sup>         |
| -30°C                                | 35.0   |             | kJ/m²  |                                  |
| 23°C                                 | 45.0   | 100         | kJ/m²  |                                  |
| Thermal                              | Dry  | Conditioned | Unit   | Test Method                      |
| Deflection Temperature<br>Under Load |  |             |        | ISO 75-2 <sup>9</sup>            |
| 0.45 MPa                             | 210  |             | °C     |                                  |
| 1.8 MPa                              | 190  |             | °C     |                                  |
| Melting Temperature (DSC)            | 220  |             | °C     | ISO 3146                         |
| Electrical                           | Dry  | Conditioned | Unit   | Test Method                      |
| Volume resistivity                   | 1.0E+13  | 1.0E+10     | ohms·m | IEC 60093 <sup>10</sup>          |
| Dielectric Constant (1 MHz)          | 3.50   | 6.00        |        | IEC 60250                        |
| Dissipation Factor (1 MHz)           | 0.020  | 0.25        |        | IEC 60250 <sup>11</sup>          |
| Comparative tracking index           | 550  |             |        | IEC 60112 <sup>12</sup>          |
| Injection                            | Dry  | Unit        |        |                                  |
| Processing (Melt) Temp               | 260 to 280   |             | °C     |                                  |
| Mold Temperature                     | 80.0 to 100  |             | °C     |                                  |
| NOTE                                 |  |             |        |                                  |
| 1.                                   | Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.  Tested in accordance with |             |        |                                  |
| 2.                                   | ISO 10350. 23°C/50%r.h. unless otherwise noted.  |             |        |                                  |
| 3.                                   | Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.                            |             |        |                                  |

|     | Tested in accordance with |
|-----|---------------------------|
|     | ISO 10350. 23°C/50%r.h.   |
| 4.  | unless otherwise noted.   |
|     | Tested in accordance with |
|     | ISO 10350. 23°C/50%r.h.   |
| 5.  | unless otherwise noted.   |
|     | Tested in accordance with |
|     | ISO 10350. 23°C/50%r.h.   |
| 6.  | unless otherwise noted.   |
|     | Tested in accordance with |
|     | ISO 10350. 23°C/50%r.h.   |
| 7.  | unless otherwise noted.   |
|     | Tested in accordance with |
|     | ISO 10350. 23°C/50%r.h.   |
| 8.  | unless otherwise noted.   |
|     | Tested in accordance with |
|     | ISO 10350. 23°C/50%r.h.   |
| 9.  | unless otherwise noted.   |
|     | Tested in accordance with |
|     | ISO 10350. 23°C/50%r.h.   |
| 10. | unless otherwise noted.   |
|     | Tested in accordance with |
|     | ISO 10350. 23°C/50%r.h.   |
| 11. | unless otherwise noted.   |
|     | Tested in accordance with |
|     | ISO 10350. 23°C/50%r.h.   |
| 12. | unless otherwise noted.   |
|     |                           |

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

