

# Iupilon® N-9

Polycarbonate

Mitsubishi Engineering-Plastics Corp

## Message:

Iupilon® N-9 is a polycarbonate (PC) material. This product is available in North America, Europe or Asia Pacific. The processing method is extrusion or injection molding.

Iupilon® The main features of the N-9 are:

flame retardant/rated flame

Flame Retardant

| General Information |                   |
|---------------------|-------------------|
| UL YellowCard       | E41179-558942     |
| Additive            | Flame retardancy  |
| Features            | Flame retardancy  |
| Appearance          | Clear/transparent |
| Forms               | Particle          |
| Processing Method   | Extrusion         |
|                     | Injection molding |

| Physical                                   | Nominal Value | Unit                   | Test Method |
|--------------------------------------------|---------------|------------------------|-------------|
| Density                                    | 1.31          | g/cm <sup>3</sup>      | ISO 1183    |
| Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)   | 3.3           | g/10 min               | ISO 1133    |
| Melt Volume-Flow Rate (MVR) (300°C/1.2 kg) | 2.90          | cm <sup>3</sup> /10min | ISO 1133    |
| Molding Shrinkage                          |               |                        |             |
| Vertical flow direction: 3.20mm            | 0.50 - 0.70   | %                      |             |
| Flow direction: 3.20mm                     | 0.50 - 0.70   | %                      |             |
| Water Absorption (Saturation, 23°C)        | 0.17          | %                      |             |

| Mechanical                      | Nominal Value | Unit | Test Method |
|---------------------------------|---------------|------|-------------|
| Tensile Modulus                 | 2600          | MPa  | ISO 527-2   |
| Tensile Stress (Yield)          | 68.0          | MPa  | ISO 527-2   |
| Tensile Strain (Yield)          | 7.2           | %    | ISO 527-2   |
| Nominal Tensile Strain at Break | 90            | %    | ISO 527-2   |
| Flexural Modulus                | 2300          | MPa  | ISO 178     |
| Flexural Stress                 | 98.0          | MPa  | ISO 178     |

| Impact                                  | Nominal Value | Unit              | Test Method |
|-----------------------------------------|---------------|-------------------|-------------|
| Charpy Notched Impact Strength (23°C)   | 11            | kJ/m <sup>2</sup> | ISO 179     |
| Charpy Unnotched Impact Strength (23°C) | No Break      |                   | ISO 179     |

| Thermal                     | Nominal Value | Unit | Test Method |
|-----------------------------|---------------|------|-------------|
| Heat Deflection Temperature |               |      |             |
| 0.45 MPa, not annealed      | 151           | °C   | ISO 75-2/B  |
| 1.8 MPa, not annealed       | 137           | °C   | ISO 75-2/A  |

| Linear thermal expansion coefficient     |               |          | ISO 11359-2 |
|------------------------------------------|---------------|----------|-------------|
| Flow                                     | 6.3E-5        | cm/cm/°C | ISO 11359-2 |
| Lateral                                  | 6.2E-5        | cm/cm/°C | ISO 11359-2 |
| Electrical                               | Nominal Value | Unit     | Test Method |
| Surface Resistivity                      | 3.0E+15       | ohms     | IEC 60093   |
| Volume Resistivity                       | 4.0E+16       | ohms·cm  | IEC 60093   |
| Relative Permittivity                    |               |          | IEC 60250   |
| 100 Hz                                   | 3.10          |          | IEC 60250   |
| 1 MHz                                    | 3.00          |          | IEC 60250   |
| Dissipation Factor                       |               |          | IEC 60250   |
| 100 Hz                                   | 8.0E-4        |          | IEC 60250   |
| 1 MHz                                    | 7.9E-3        |          | IEC 60250   |
| Comparative Tracking Index (CTI)         | PLC 2         |          | UL 746      |
| Flammability                             | Nominal Value | Unit     | Test Method |
| Flame Rating (0.800 mm)                  | V-0           |          | UL 94       |
| Additional Information                   |               |          |             |
| N-9R: Mold ReleaseN-9U(R): UV Stabilized |               |          |             |
| Injection                                | Nominal Value | Unit     |             |
| Drying Temperature                       | 120           | °C       |             |
| Drying Time                              | 4.0 - 8.0     | hr       |             |
| Rear Temperature                         | 260 - 280     | °C       |             |
| Middle Temperature                       | 270 - 290     | °C       |             |
| Front Temperature                        | 280 - 310     | °C       |             |
| Nozzle Temperature                       | 280 - 310     | °C       |             |
| Mold Temperature                         | 80.0 - 110    | °C       |             |
| Injection Pressure                       | 50.0 - 150    | MPa      |             |
| Screw Speed                              | 50 - 100      | rpm      |             |

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

