

## Solvay Technyl® A 246M Nylon 66, Impact Grade, EH0

Category : Polymer , Thermoplastic , Nylon , Nylon 66 , Nylon 66, Impact Grade

### Material Notes:

Unreinforced and modified polyamide 66, with improved impact resistance, heat stabilized, for injection molding. Technyl A 246m offers an excellent notched impact resistance at low temperatures making it suitable for sports and leisure applications. It is suitable for shoe soles, ski components, ski and surf bindings, as well as toy applications, such as the bumper of a remote-controlled car. This product is available in natural, white and black. Information provided by Rhodia; Rhodia has been acquired by Solvay.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Solvay-Technyl-A-246M-Nylon-66-Impact-Grade-EH0.php](http://www.lookpolymers.com/polymer_Solvay-Technyl-A-246M-Nylon-66-Impact-Grade-EH0.php)

| Physical Properties               | Metric      | English                   | Comments                           |
|-----------------------------------|-------------|---------------------------|------------------------------------|
| Density                           | 1.08 g/cc   | 0.0390 lb/in <sup>3</sup> | ISO 1183-A                         |
| Water Absorption                  | 1.05 %      | 1.05 %                    | 24 hours in water at 23°C; ISO 62. |
| Linear Mold Shrinkage             | 0.019 cm/cm | 0.019 in/in               | RHODIA-EP                          |
| Linear Mold Shrinkage, Transverse | 0.019 cm/cm | 0.019 in/in               | RHODIA-EP                          |

| Mechanical Properties      | Metric                 | English                    | Comments          |
|----------------------------|------------------------|----------------------------|-------------------|
| Tensile Strength, Ultimate | 44.0 MPa               | 6380 psi                   | ISO 527           |
| Tensile Strength, Yield    | 47.0 MPa               | 6820 psi                   | ISO 527           |
| Elongation at Break        | 65 %                   | 65 %                       | ISO 527           |
| Elongation at Yield        | 20 %                   | 20 %                       | ISO 527           |
| Tensile Modulus            | 1.90 GPa               | 276 ksi                    | ISO 527           |
| Flexural Yield Strength    | 70.0 MPa               | 10200 psi                  | ISO 178           |
| Flexural Modulus           | 1.80 GPa               | 261 ksi                    | ISO 178           |
| Izod Impact, Notched (ISO) | 22.0 kJ/m <sup>2</sup> | 10.5 ft-lb/in <sup>2</sup> | Low Temp; ISO 180 |
| Izod Impact Resistance     | 6.00 J/cm <sup>2</sup> | 28.6 ft-lb/in <sup>2</sup> | ISO 180           |
| Charpy Impact Unnotched    | NB                     | NB                         | ISO 179/EU-1993   |
| Charpy Impact, Notched     | 1.60 J/cm <sup>2</sup> | 7.61 ft-lb/in <sup>2</sup> | ISO 179/1EA-1993  |
|                            | 5.50 J/cm <sup>2</sup> | 26.2 ft-lb/in <sup>2</sup> | ISO 179/1EA-1993  |

| Thermal Properties | Metric       | English        | Comments |
|--------------------|--------------|----------------|----------|
|                    | 70.0 µm/m-°C | 38.9 µin/in-°F |          |

| CTE Linear<br>Thermal Properties               | Metric<br>@ Temperature 23.0 -<br>85.0 Â°C | English<br>@ Temperature 73.4 -<br>185 Â°F | ASTM E831<br>Comments |
|------------------------------------------------|--------------------------------------------|--------------------------------------------|-----------------------|
| Melting Point                                  | 263 Â°C                                    | 505 Â°F                                    | ISO 3146-C            |
| Deflection Temperature at 1.8 MPa<br>(264 psi) | 65.0 Â°C                                   | 149 Â°F                                    | ISO 75-2              |
| Flammability, UL94                             | HB<br>@Thickness 1.60 mm                   | HB<br>@Thickness 0.0630 in                 | ISO 1210/UL 94        |
| Oxygen Index                                   | 24.5 %                                     | 24.5 %                                     | ISO 4589              |

| Electrical Properties      | Metric                      | English                     | Comments  |
|----------------------------|-----------------------------|-----------------------------|-----------|
| Electrical Resistivity     | 1.00e+15 ohm-cm             | 1.00e+15 ohm-cm             | IEC 93    |
| Surface Resistance         | 1.00e+14 ohm                | 1.00e+14 ohm                | IEC 93    |
| Dielectric Constant        | 3.2<br>@Frequency 1e+6 Hz   | 3.2<br>@Frequency 1e+6 Hz   | IEC 250   |
| Dielectric Strength        | 30.0 kV/mm                  | 762 kV/in                   | IEC 243-1 |
| Dissipation Factor         | 0.020<br>@Frequency 1e+6 Hz | 0.020<br>@Frequency 1e+6 Hz | IEC 250   |
| Comparative Tracking Index | 575 V                       | 575 V                       | IEC 112   |

| Processing Properties     | Metric            | English            | Comments               |
|---------------------------|-------------------|--------------------|------------------------|
| Rear Barrel Temperature   | 250 - 270 Â°C     | 482 - 518 Â°F      |                        |
| Middle Barrel Temperature | 260 - 280 Â°C     | 500 - 536 Â°F      |                        |
| Front Barrel Temperature  | 270 - 290 Â°C     | 518 - 554 Â°F      |                        |
| Melt Temperature          | 270 - 290 Â°C     | 518 - 554 Â°F      |                        |
| Mold Temperature          | 60.0 - 90.0 Â°C   | 140 - 194 Â°F      | Surface                |
| Drying Temperature        | 80.0 Â°C          | 176 Â°F            | Dehumidifying Dryer    |
| Dry Time                  | 3 - 4 hour        | 3 - 4 hour         |                        |
| Moisture Content          | <= 0.20 %         | <= 0.20 %          |                        |
| Back Pressure             | 0.345 - 0.689 MPa | 50.0 - 100 psi     |                        |
| Fill Speed                | 300 - 600 mm/sec  | 11.8 - 23.6 in/sec | Peripheral Screw Speed |

| Descriptive Properties                 | Value                         | Comments |
|----------------------------------------|-------------------------------|----------|
| Injection Speed (cm <sup>3</sup> /sec) | 80 - 150 cm <sup>3</sup> /sec |          |

## Contact Songhan Plastic Technology Co.,Ltd.

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