

# Generic PPE+PS+Nylon

Polyphenylene Ether + PS + Nylon

Generic

Message:

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This information is provided for comparative purposes only.

| General Information                        |               |           |             |
|--------------------------------------------|---------------|-----------|-------------|
| Physical                                   | Nominal Value | Unit      | Test Method |
| Specific Gravity                           |               |           |             |
| --                                         | 1.07 - 1.12   | g/cm³     | ASTM D792   |
| 23°C                                       | 1.07 - 1.25   | g/cm³     | ISO 1183    |
| Melt Mass-Flow Rate (MFR) (280°C/5.0 kg)   | 8.0 - 21      | g/10 min  | ASTM D1238  |
| Melt Volume-Flow Rate (MVR) (280°C/5.0 kg) | 7.50 - 19.0   | cm³/10min | ISO 1133    |
| Molding Shrinkage                          |               |           | ASTM D955   |
| Flow: 23°C                                 | 1.2 - 1.8     | %         | ASTM D955   |
| Transverse flow: 23°C                      | 1.1 - 1.3     | %         | ASTM D955   |
| Water Absorption                           |               |           |             |
| 23°C, 24 hr                                | 0.39 - 0.60   | %         | ASTM D570   |
| Saturated, 23°C                            | 3.5 - 4.2     | %         | ISO 62      |
| Equilibrium, 23°C, 50% RH                  | 1.2           | %         | ISO 62      |
| Hardness                                   | Nominal Value | Unit      | Test Method |
| Ball Indentation Hardness                  | 75.0 - 90.0   | MPa       | ISO 2039-1  |
| Mechanical                                 | Nominal Value | Unit      | Test Method |
| Tensile Modulus                            |               |           |             |
| 23°C                                       | 1820 - 3320   | MPa       | ASTM D638   |
| 23°C                                       | 2000 - 3050   | MPa       | ISO 527-2   |
| Tensile Strength                           |               |           |             |
| Yield, 23°C                                | 53.5 - 65.6   | MPa       | ASTM D638   |
| Yield, 23°C                                | 50.0 - 65.2   | MPa       | ISO 527-2   |
| Fracture, 23°C                             | 49.8 - 60.2   | MPa       | ASTM D638   |
| Fracture, 23°C                             | 45.0 - 55.5   | MPa       | ISO 527-2   |
| Tensile Elongation                         |               |           |             |
| Yield, 23°C                                | 4.7 - 5.0     | %         | ASTM D638   |
| Yield, 23°C                                | 3.5 - 5.1     | %         | ISO 527-2   |
| Fracture, 23°C                             | 2.2 - 100     | %         | ASTM D638   |
| Fracture, 23°C                             | 2.8 - 51      | %         | ISO 527-2   |
| Flexural Modulus                           |               |           |             |
| 23°C                                       | 1840 - 2730   | MPa       | ASTM D790   |
| 23°C                                       | 1860 - 2850   | MPa       | ISO 178     |

|                                       |                  |                   |             |
|---------------------------------------|------------------|-------------------|-------------|
| Flexural Strength                     |                  |                   |             |
| 23°C                                  | 73.5 - 85.7      | MPa               | ASTM D790   |
| 23°C                                  | 70.0 - 103       | MPa               | ISO 178     |
| Yield, 23°C                           | 74.7 - 99.3      | MPa               | ASTM D790   |
| Impact                                | Nominal Value    | Unit              | Test Method |
| Charpy Notched Impact Strength (23°C) | 11 - 55          | kJ/m <sup>2</sup> | ISO 179     |
| Notched Izod Impact                   |                  |                   |             |
| 23°C                                  | 73 - 680         | J/m               | ASTM D256   |
| 23°C                                  | 9.5 - 55         | kJ/m <sup>2</sup> | ISO 180     |
| Instrumented Dart Impact (23°C)       | 4.00 - 60.0      | J                 | ASTM D3763  |
| Thermal                               | Nominal Value    | Unit              | Test Method |
| Deflection Temperature Under Load     |                  |                   |             |
| 0.45 MPa, not annealed                | 154 - 196        | °C                | ASTM D648   |
| 0.45 MPa, not annealed                | 174 - 193        | °C                | ISO 75-2/B  |
| 1.8 MPa, not annealed                 | 83.9 - 197       | °C                | ASTM D648   |
| Vicat Softening Temperature           |                  |                   |             |
| --                                    | 178 - 233        | °C                | ASTM D1525  |
| --                                    | 169 - 246        | °C                | ISO 306     |
| Linear thermal expansion coefficient  |                  |                   |             |
| Flow                                  | 7.5E-5 - 9.8E-5  | cm/cm/°C          | ASTM E831   |
| Flow                                  | 8.0E-5 - 1.0E-4  | cm/cm/°C          | ISO 11359-2 |
| Lateral                               | 5.9E-5 - 1.0E-4  | cm/cm/°C          | ASTM E831   |
| Lateral                               | 8.9E-5 - 9.1E-5  | cm/cm/°C          | ISO 11359-2 |
| Thermal Conductivity (23°C)           | 0.23 - 0.24      | W/m/K             | ISO 8302    |
| Electrical                            | Nominal Value    | Unit              | Test Method |
| Volume Resistivity (23°C)             | 4.0E+3 - 1.1E+15 | ohms · cm         | ASTM D257   |
| Relative Permittivity (23°C)          | 3.17             |                   | IEC 60250   |
| Dissipation Factor (23°C)             | 0.024 - 0.072    |                   | IEC 60250   |
| Injection                             | Nominal Value    | Unit              |             |
| Drying Temperature                    | 99.7 - 110       | °C                |             |
| Drying Time                           | 2.5 - 3.5        | hr                |             |
| Drying Time, Maximum                  | 8.0              | hr                |             |
| Suggested Max Moisture                | 0.069 - 0.070    | %                 |             |
| Suggested Shot Size                   | 40               | %                 |             |
| Hopper Temperature                    | 70.0 - 70.5      | °C                |             |
| Rear Temperature                      | 269 - 280        | °C                |             |
| Middle Temperature                    | 275 - 292        | °C                |             |
| Front Temperature                     | 279 - 306        | °C                |             |
| Nozzle Temperature                    | 281 - 295        | °C                |             |
| Processing (Melt) Temp                | 282 - 305        | °C                |             |
| Mold Temperature                      | 78.1 - 100       | °C                |             |
| Back Pressure                         | 0.847 - 0.862    | MPa               |             |

|                        |    |     |
|------------------------|----|-----|
| Screw Speed            | 60 | rpm |
| Injection instructions |    |     |

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