

## SABIC Innovative Plastics NORYL FE8000S PPE+PS

Category : Polymer , Thermoplastic , Polyphenylene Ether/PPO , Polystyrene (PS)

### Material Notes:

Noryl\* FE8000S resin is an unfilled modified polyphenylene ether resin designed for fluid handling applications. This resin is suitable for multiple conversion routes and will be available in custom colors.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_SABIC-Innovative-Plastics-NORYL-FE8000S-PPEPS.php](http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-NORYL-FE8000S-PPEPS.php)

| Physical Properties            | Metric                                               | English                                              | Comments                                |
|--------------------------------|------------------------------------------------------|------------------------------------------------------|-----------------------------------------|
| Specific Gravity               | 1.08 g/cc                                            | 1.08 g/cc                                            | ASTM D792                               |
| Density                        | 1.08 g/cc                                            | 0.0390 lb/in <sup>3</sup>                            | ISO 1183                                |
| Moisture Absorption            | 0.0600 %                                             | 0.0600 %                                             | 23°C / 50% RH; ISO 62                   |
| Water Absorption at Saturation | 0.23 %                                               | 0.23 %                                               | ISO 62                                  |
| Linear Mold Shrinkage, Flow    | 0.0060 - 0.0080 cm/cm<br>@Thickness 3.20 mm          | 0.0060 - 0.0080 in/in<br>@Thickness 0.126 in         | SABIC Method                            |
| Melt Flow                      | 6.0 g/10 min<br>@Load 5.00 kg,<br>Temperature 300 °C | 6.0 g/10 min<br>@Load 11.0 lb,<br>Temperature 572 °F | ASTM D1238                              |
| Melt Index of Compound         | 10 g/10 min<br>@Load 10.0 kg,<br>Temperature 300 °C  | 10 g/10 min<br>@Load 22.0 lb,<br>Temperature 572 °F  | MVR [cm <sup>3</sup> /10 min]; ISO 1133 |

| Mechanical Properties     | Metric   | English   | Comments                     |
|---------------------------|----------|-----------|------------------------------|
| Tensile Strength at Break | 56.0 MPa | 8120 psi  | Type I, 50 mm/min; ASTM D638 |
|                           | 56.0 MPa | 8120 psi  | 50 mm/min; ISO 527           |
| Tensile Strength, Yield   | 73.0 MPa | 10600 psi | 50 mm/min; ISO 527           |
|                           | 75.0 MPa | 10900 psi | Type I, 50 mm/min; ASTM D638 |
| Elongation at Break       | 11 %     | 11 %      | Type I, 50 mm/min; ASTM D638 |
|                           | 11 %     | 11 %      | 50 mm/min; ISO 527           |
| Elongation at Yield       | 6.0 %    | 6.0 %     | Type I, 50 mm/min; ASTM D638 |
|                           | 6.0 %    | 6.0 %     | 50 mm/min; ISO 527           |
| Tensile Modulus           | 2.45 GPa | 355 ksi   | 1 mm/min; ISO 527            |

| Mechanical Properties      | 2.50 GPa<br>Metric     | 363 ksi<br>English         | 5 mm/min: ASTM D638<br>Comments    |
|----------------------------|------------------------|----------------------------|------------------------------------|
| Flexural Yield Strength    | 102 MPa                | 14800 psi                  | 1.3 mm/min, 50 mm span; ASTM D790  |
|                            | 107 MPa                | 15500 psi                  | 2 mm/min; ISO 178                  |
| Flexural Modulus           | 2.56 GPa               | 371 ksi                    | 2 mm/min; ISO 178                  |
|                            | 2.60 GPa               | 377 ksi                    | 1.3 mm/min, 50 mm span; ASTM D790  |
| Izod Impact, Notched       | 2.90 J/cm              | 5.43 ft-lb/in              | ASTM D256                          |
|                            | 2.40 J/cm              | 4.50 ft-lb/in              | ASTM D256                          |
|                            | @Temperature -30.0 °C  | @Temperature -22.0 °F      |                                    |
| Izod Impact, Notched (ISO) | 23.0 kJ/m <sup>2</sup> | 10.9 ft-lb/in <sup>2</sup> | 80*10*4; ISO 180/1A                |
|                            | 13.0 kJ/m <sup>2</sup> | 6.19 ft-lb/in <sup>2</sup> | 80*10*4; ISO 180/1A                |
|                            | @Temperature -30.0 °C  | @Temperature -22.0 °F      |                                    |
| Charpy Impact, Notched     | 2.20 J/cm <sup>2</sup> | 10.5 ft-lb/in <sup>2</sup> | Edgew 80*10*4 sp=62mm; ISO 179/1eA |
|                            | 1.30 J/cm <sup>2</sup> | 6.19 ft-lb/in <sup>2</sup> | Edgew 80*10*4 sp=62mm; ISO 179/1eA |
|                            | @Temperature -30.0 °C  | @Temperature -22.0 °F      |                                    |
| Dart Drop, Total Energy    | 50.0 J                 | 36.9 ft-lb                 | ASTM D3763                         |
|                            | @Temperature 23.0 °C   | @Temperature 73.4 °F       |                                    |

| Thermal Properties                          | Metric                       | English                     | Comments              |
|---------------------------------------------|------------------------------|-----------------------------|-----------------------|
| CTE, linear, Parallel to Flow               | 87.0 µm/m-°C                 | 48.3 µin/in-°F              | ASTM E 831            |
|                                             | @Temperature -40.0 - 40.0 °C | @Temperature -40.0 - 104 °F |                       |
|                                             | 87.0 µm/m-°C                 | 48.3 µin/in-°F              | ISO 11359-2           |
|                                             | @Temperature -40.0 - 40.0 °C | @Temperature -40.0 - 104 °F |                       |
| CTE, linear, Transverse to Flow             | 93.0 µm/m-°C                 | 51.7 µin/in-°F              | ASTM E 831            |
|                                             | @Temperature -40.0 - 40.0 °C | @Temperature -40.0 - 104 °F |                       |
|                                             | 93.0 µm/m-°C                 | 51.7 µin/in-°F              | ISO 11359-2           |
|                                             | @Temperature -40.0 - 40.0 °C | @Temperature -40.0 - 104 °F |                       |
| Deflection Temperature at 0.46 MPa (66 psi) | 163 °C                       | 325 °F                      | unannealed; ASTM D648 |
|                                             | @Thickness 3.20 mm           | @Thickness 0.126 in         |                       |

| Thermal Properties                  | Metric             | English             | Comments              |
|-------------------------------------|--------------------|---------------------|-----------------------|
| Temperature at 1.8 MPa<br>(264 psi) |                    |                     | Rate B/50; ISO 75/Af  |
|                                     | 149 °C             | 300 °F              | unannealed; ASTM D648 |
|                                     | @Thickness 3.20 mm | @Thickness 0.126 in |                       |
| Vicat Softening Point               | 167 °C             | 333 °F              | Rate B/50; ASTM D1525 |
|                                     | 168 °C             | 334 °F              | Rate B/50; ISO 306    |
|                                     | 172 °C             | 342 °F              | Rate B/120; ISO 306   |

## Contact Songhan Plastic Technology Co.,Ltd.

Website : [www.lookpolymers.com](http://www.lookpolymers.com)

Email : [sales@lookpolymers.com](mailto:sales@lookpolymers.com)

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China