

## Idemitsu Kosan Xarec® WA 214 SPS, 40% Glass Filled

Category : Polymer , Thermoplastic , Polystyrene (PS) , Syndiotactic Polystyrene (SPS) , Syndiotactic Polystyrene (SPS) with Glass or Carbon Fiber

Material Notes:

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Idemitsu-Kosan-Xarec-WA-214-SPS-40-Glass-Filled.php](http://www.lookpolymers.com/polymer_Idemitsu-Kosan-Xarec-WA-214-SPS-40-Glass-Filled.php)

| Physical Properties               | Metric                | English                   | Comments        |
|-----------------------------------|-----------------------|---------------------------|-----------------|
| Density                           | 1.37 g/cc             | 0.0495 lb/in <sup>3</sup> |                 |
| Filler Content                    | 40 %                  | 40 %                      |                 |
| Water Absorption                  | 0.010 %               | 0.010 %                   | 24 hrs., 50% RH |
| Linear Mold Shrinkage, Flow       | 0.0010 - 0.0030 cm/cm | 0.0010 - 0.0030 in/in     |                 |
| Linear Mold Shrinkage, Transverse | 0.0020 - 0.0040 cm/cm | 0.0020 - 0.0040 in/in     |                 |

| Mechanical Properties        | Metric                 | English                    | Comments |
|------------------------------|------------------------|----------------------------|----------|
| Tensile Strength at Break    | 145 MPa                | 21000 psi                  |          |
| Elongation at Break          | 1.5 %                  | 1.5 %                      |          |
| Tensile Modulus              | 13.7 GPa               | 1990 ksi                   |          |
| Flexural Yield Strength      | 220 MPa                | 31900 psi                  |          |
| Flexural Modulus             | 13.2 GPa               | 1910 ksi                   |          |
| Izod Impact, Notched (ISO)   | 11.0 kJ/m <sup>2</sup> | 5.23 ft-lb/in <sup>2</sup> |          |
| Izod Impact, Unnotched (ISO) | 40.0 kJ/m <sup>2</sup> | 19.0 ft-lb/in <sup>2</sup> |          |
| Charpy Impact Unnotched      | 4.20 J/cm <sup>2</sup> | 20.0 ft-lb/in <sup>2</sup> |          |
| Charpy Impact, Notched       | 1.20 J/cm <sup>2</sup> | 5.71 ft-lb/in <sup>2</sup> |          |

| Thermal Properties                          | Metric                        | English                       | Comments |
|---------------------------------------------|-------------------------------|-------------------------------|----------|
| CTE, linear, Parallel to Flow               | 15.0 Åµm/m-Å°C                | 8.33 Åµin/in-Å°F              |          |
|                                             | @Temperature -30.0 - 30.0 Å°C | @Temperature -22.0 - 86.0 Å°F |          |
| CTE, linear, Transverse to Flow             | 38.0 Åµm/m-Å°C                | 21.1 Åµin/in-Å°F              |          |
| Deflection Temperature at 0.46 MPa (66 psi) | 270 Å°C                       | 518 Å°F                       |          |
| Deflection Temperature at 1.8 MPa           |                               |                               |          |

| (264 psi)<br>Thermal Properties | 250 Â°C<br>Metric   | 482 Â°F<br>English   | Comments |
|---------------------------------|---------------------|----------------------|----------|
| Flammability, UL94              | HB                  | HB                   |          |
|                                 | @Thickness 0.750 mm | @Thickness 0.0295 in |          |

| Electrical Properties  | Metric          | English         | Comments  |
|------------------------|-----------------|-----------------|-----------|
| Electrical Resistivity | 1.00e+16 ohm-cm | 1.00e+16 ohm-cm |           |
| Dielectric Constant    | 3.1             | 3.1             |           |
| Dielectric Strength    | 26.0 kV/mm      | 660 kV/in       | ASTM D145 |
| Dissipation Factor     | 0.0010          | 0.0010          | IEC 60250 |

| Processing Properties | Metric          | English       | Comments                   |
|-----------------------|-----------------|---------------|----------------------------|
| Melt Temperature      | 280 - 310 Â°C   | 536 - 590 Â°F |                            |
| Mold Temperature      | 50.0 - 80.0 Â°C | 122 - 176 Â°F |                            |
|                       | 130 - 155 Â°C   | 266 - 311 Â°F | For optimal surface finish |

## Contact Songhan Plastic Technology Co.,Ltd.

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