

## Idemitsu Kosan Xarec<sup>®</sup> EA 533 SPS, 30% Glass Filled

Category : Polymer , Thermoplastic , Polystyrene (PS) , Syndiotactic Polystyrene (SPS)

### Material Notes:

Glass Filled, Ignition Resistant, Impact Modified. Used in electronic and electrical applications.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Idemitsu-Kosan-Xarec-EA-533-SPS-30-Glass-Filled.php](http://www.lookpolymers.com/polymer_Idemitsu-Kosan-Xarec-EA-533-SPS-30-Glass-Filled.php)

Physical Properties	Metric	English	Comments
Density	1.38 g/cc	0.0499 lb/in <sup>3</sup>	
Filler Content	30 %	30 %	
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	0.0040 - 0.0070 cm/cm	0.0040 - 0.0070 in/in	

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	125 MPa	18100 psi	
Elongation at Break	2.0 %	2.0 %	
Tensile Modulus	10.7 GPa	1550 ksi	
Flexural Yield Strength	195 MPa	28300 psi	
Flexural Modulus	10.5 GPa	1520 ksi	
Izod Impact, Notched (ISO)	10.0 kJ/m <sup>2</sup>	4.76 ft-lb/in <sup>2</sup>	
Izod Impact, Unnotched (ISO)	33.0 kJ/m <sup>2</sup>	15.7 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	19.0 $\mu\text{m}/\text{m}\cdot\text{Å}^\circ\text{C}$	10.6 $\mu\text{in}/\text{in}\cdot\text{Å}^\circ\text{F}$	
	@Temperature -30.0 - 30.0 $\text{Å}^\circ\text{C}$	@Temperature -22.0 - 86.0 $\text{Å}^\circ\text{F}$	
CTE, linear, Transverse to Flow	39.0 $\mu\text{m}/\text{m}\cdot\text{Å}^\circ\text{C}$	21.7 $\mu\text{in}/\text{in}\cdot\text{Å}^\circ\text{F}$	
Deflection Temperature at 0.46 MPa (66 psi)	265 $\text{Å}^\circ\text{C}$	509 $\text{Å}^\circ\text{F}$	

Deflection Temperature at 1.8 MPa Thermal Properties (104 psi)	245 Â°C Metric	473 Â°F English	Comments
UL RTI, Electrical	125 Â°C	257 Â°F	UL746B
UL RTI, Mechanical with Impact	120 Â°C	248 Â°F	UL746B
UL RTI, Mechanical without Impact	120 Â°C	248 Â°F	UL746B
Flammability, UL94	V-0 @Thickness 1.50 mm	V-0 @Thickness 0.0591 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	32.0 kV/mm	813 kV/in	ASTM D145
Dissipation Factor	0.0020	0.0020	IEC 60250
Arc Resistance	60 - 120 sec	60 - 120 sec	ASTM D495
Comparative Tracking Index	250 - 400 V	250 - 400 V	IEC 60112
Hot Wire Ignition, HWI	60 - 120 sec @Thickness 1.50 mm	60 - 120 sec @Thickness 0.0591 in	UL 746A
High Amp Arc Ignition, HAI	>= 120 arcs @Thickness 1.50 mm	>= 120 arcs @Thickness 0.0591 in	UL 746A
High Voltage Arc-Tracking Rate, HVTR	0.000 - 10.0 mm/min	0.000 - 0.394 in/min	UL746A

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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