

## Kuraray Vectran® HT 1500/300 LCP Fiber

Category : Other Engineering Material , Composite Fibers , Polymer , Thermoplastic , Liquid Crystal Polymer (LCP)

### Material Notes:

Vectran® is a high-performance multifilament yarn spun from liquid crystal polymer (LCP). Vectran® fiber exhibits exceptional strength and rigidity. Pound for pound Vectran® fiber is five times stronger than steel and ten times stronger than aluminum. Vectran® features: High strength and modulus Excellent creep resistance High abrasion resistance Excellent flex/fold characteristics Minimal moisture absorption Hydrolytically stable Resistance to organic solvents Stable to acids (

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Kuraray-Vectran-HT-1500300-LCP-Fiber.php](http://www.lookpolymers.com/polymer_Kuraray-Vectran-HT-1500300-LCP-Fiber.php)

Physical Properties	Metric	English	Comments
Density	1.40 g/cc	0.0506 lb/in <sup>3</sup>	
Moisture Absorption at Equilibrium	<= 0.10 %	<= 0.10 %	65% RH
Loss On Ignition	28 %	28 %	

Mechanical Properties	Metric	English	Comments
Tensile Strength	3200 MPa	464000 psi	
Elongation at Break	3.3 - 3.7 %	3.3 - 3.7 %	
Tensile Modulus	75.0 GPa	10900 ksi	Initial Modulus
Tenacity	2.03 - 2.38 N/tex	23.0 - 27.0 g/denier	

Thermal Properties	Metric	English	Comments
CTE, linear	-11.6 $\mu\text{m/m}\cdot\text{Å}^\circ\text{C}$	-6.44 $\mu\text{in/in}\cdot\text{Å}^\circ\text{F}$	Longitudinal Fiber
	@Temperature 100 - 200 $\text{Å}^\circ\text{C}$	@Temperature 212 - 392 $\text{Å}^\circ\text{F}$	
	-4.80 $\mu\text{m/m}\cdot\text{Å}^\circ\text{C}$	-2.67 $\mu\text{in/in}\cdot\text{Å}^\circ\text{F}$	Longitudinal Fiber
	@Temperature -150 - 100 $\text{Å}^\circ\text{C}$	@Temperature -238 - 212 $\text{Å}^\circ\text{F}$	
Specific Heat Capacity	1.10 J/g- $\text{Å}^\circ\text{C}$	0.263 BTU/lb- $\text{Å}^\circ\text{F}$	
	@Temperature 23.0 $\text{Å}^\circ\text{C}$	@Temperature 73.4 $\text{Å}^\circ\text{F}$	
	1.42 J/g- $\text{Å}^\circ\text{C}$	0.339 BTU/lb- $\text{Å}^\circ\text{F}$	
	@Temperature 100 $\text{Å}^\circ\text{C}$	@Temperature 212 $\text{Å}^\circ\text{F}$	
Thermal Conductivity	1.50 W/m-K	10.4 BTU-in/hr-ft $\text{Å}^2$ - $\text{Å}^\circ\text{F}$	
	@Temperature 23.0		

Thermal Properties	°C Metric	@Temperature 73.4 °F English	Comments
	2.00 W/m-K	13.9 BTU-in/hr-ft <sup>2</sup> - °F	
	@Temperature 100 °C	@Temperature 212 °F	
Decomposition Temperature	>= 400 °C	>= 752 °F	charring begins
	>= 450 °C	>= 842 °F	20% weight loss; TGA
Shrinkage	<= 0.20 %	<= 0.20 %	Hot Air
	@Temperature 180 °C, Time 1800 sec	@Temperature 356 °F, Time 0.500 hour	
	<= 0.20 %	<= 0.20 %	Boiling Water
	@Temperature 100 °C, Time 1800 sec	@Temperature 212 °F, Time 0.500 hour	

Electrical Properties	Metric	English	Comments
Dielectric Constant	<= 3	<= 3	
	@Frequency 1e+10 Hz	@Frequency 1e+10 Hz	

## 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