

# MINIFIBERS, INC.

## Technical Data Sheet

### LCP FIBERS Vectran® HT

Product Code Prefix: LCVEC-HTT801

**General Description:** Vectran® is a liquid crystal polymer fiber, made from a family of aromatic polyesters known as polyarylates. It is stronger and more durable than aramid fibers, providing improved performance in demanding applications that require stable performance in extended use scenarios or extreme environments.

**Standard Filament Size:** 2.5 denier per filament (dpf)

**Standard Cut Lengths:** 1/8", 1/4", 1/2", 3/4", and 1"  
(3mm, 6mm, 13mm, 19mm, and 26mm)  
Other lengths available upon request.

**Shrinkage, Boiling Water:** <0.2%

**Tenacity:** ~25.9 g/den; ~3.2 GPa

**Elongation:** <4.0%

**Modulus:** ~75 GPa

**Density:** 1.40-1.41 g/cm<sup>3</sup>

**Average Moisture Regain:** Does not absorb moisture.

**Effect of Heat:** Softens at 300°C / 572°F; does not melt.  
Decomposes at >400°C / 752°F.

Vectran® has a low, negative coefficient of thermal expansion, and shows excellent property retention in a broad temperature range. For end uses that call for long term or cyclic thermal exposure, Vectran® can offer increased product lifetimes.

**Chemical Resistance:** Excellent bleach resistance. Resistant to organic solvents, some acids of >90% concentration, and bases of <30% concentration.  
Vectran® has good strength retention in chemical exposures covering a wide range of aggressive chemicals, concentrations, exposure times, and temperatures.

**Durability:** Superior to aramid fibers in impact resistance, abrasion resistance, stress relaxation, and resistance to flex fatigue. UV resistance is moderate, but Vectran® is virtually unaffected by high levels of radiation.

**Other Characteristics:** Outstanding vibration dampening characteristics; high dielectric strength; excellent offgassing or outgassing characteristics.

**Packaging:** Standard packaging is corrugated boxes with polyethylene liners. Custom packaging available upon request.

Vectran® is a trademark of Kuraray Co., Ltd.

The above information is provided to describe typical values and does not constitute a product specification. MiniFIBERS warrants that for each Product sold, such Product will meet the standard specifications provided for that Product and will be of a quality consistent with the standard specifications. This is the sole warranty given with respect to the Product, and is given expressly in lieu of any other warranties, expressed or implied, including without limitation any implied or general warranty of merchantability or of fitness for a particular purpose. It is expressly understood that any technical advice or assistance that may be provided by MiniFIBERS is rendered without compensation, and MiniFIBERS assumes no obligation or liability for such advice or assistance given, or for results obtained.