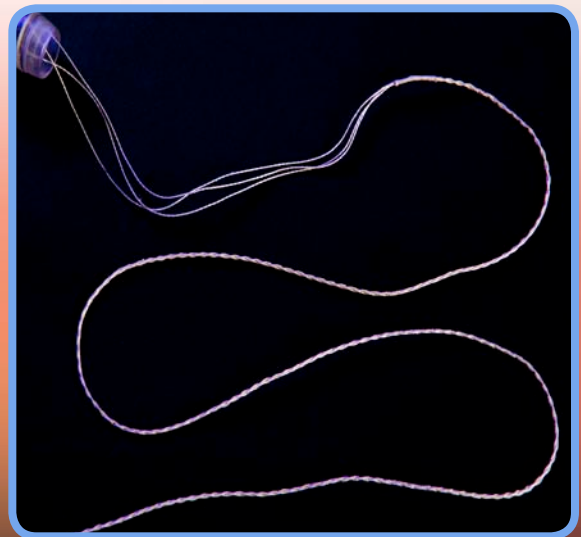


# Vectran™

Enhance • Transform • Discover

**Strength  
where you need it**  
...for better function and feel.

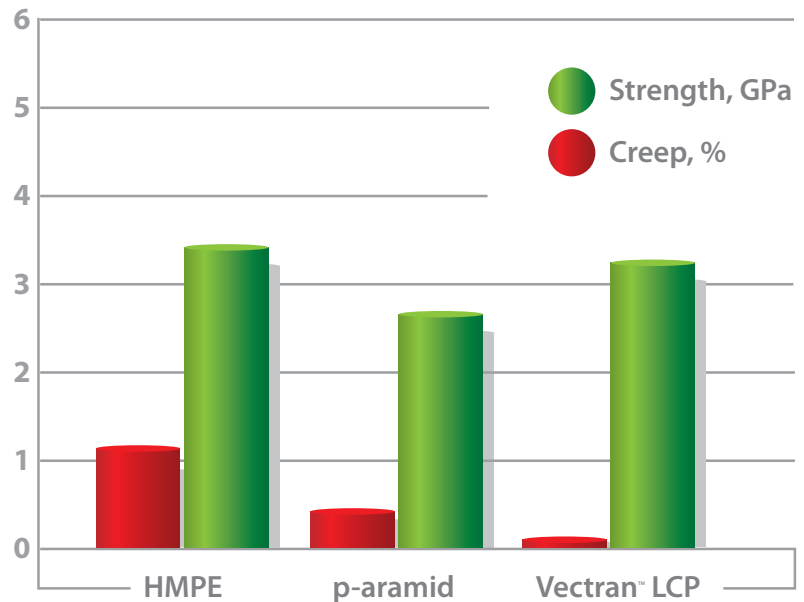
## Medical Applications



# Vectran™ Medical Applications

## Product Applications:

- Catheter Reinforcement
- Medical Device Actuation Cables
- Medical Device Delivery Systems



Source: Internal testing or published data. Creep conditions 25°C, 30% load, 100 hrs.

## Physical Properties

Typical 1500d/300f Vectran™ HT

Tenacity:	3.2 GPa, 465 ksi, 26 g/den
Strength Retention:	80% at 80°C, 105% at 0°C, 115% at -70°C
Initial Modulus:	75 GPa, 10.8 Msi, 600 g/den
Denier/fil:	2.5 to 5.0
Density:	1.4 g/cc
Shrinkage:	Water (100°C) <0.2%; Air (180°C) <0.2%
Elongation:	3.8%
Moisture Regain:	<0.1%

## Vectran™

Vectran™ is a high-performance multifilament yarn spun from liquid crystal polymer (LCP). Vectran™ is the only commercially available melt spun LCP fiber in the world. Vectran™ fiber exhibits exceptional strength and rigidity. Pound for pound Vectran™ fiber is five times stronger than steel and ten times stronger than aluminum.



Photo: Courtesy of Steeger USA

# Key Benefits for Medical Devices

## High Tensile Properties

- Increases strength and decreases volume for smaller and thinner catheters.

## Low Creep & Elongation

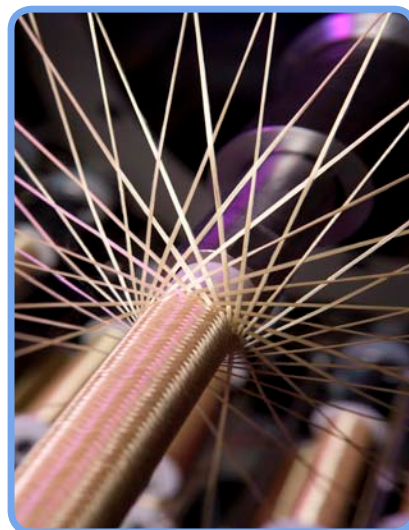
- Creates a dimensionally stable product for a consistent user feel and longer life.

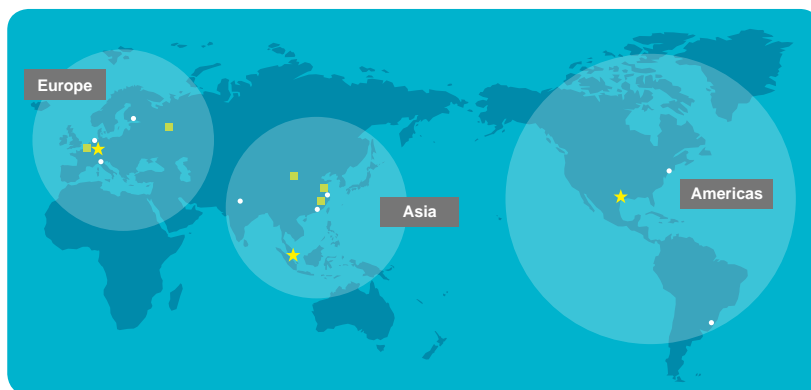
## Flex Fold Durability

- Maintains strength for robust performance even after multiple bending cycles.

## Excellent Chemical Resistance

- Compatible with a variety of chemical sterilization protocols, high-temperature autoclave or gamma radiation.





Kuraray is a \$4B diversified global manufacturer of chemicals, polymers, films, fibers and textiles. The company began producing fibers based on synthetic polymers in 1926. Today Kuraray has more than 6000 employees, with ISO certified manufacturing assets in Japan, Europe, China, and the U.S, and Research and Technical centers in Kurashiki, Japan and Houston, Texas. Kuraray has been the global manufacturer of high performance Vectran™ LCP fibers since 1990. Kuraray is a member of the Dow Jones Sustainability Index, MS-SRI Global 100, FTSE4Good, and the Japan Responsible Care Council.

# **kuraray**

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# **Vectran™**

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