Key Features
- Good chemical resistance
- Hydrophobic
- Good abrasion resistance
- Good tensile strength

Disadvantages
- Flammable
- Dissolves in strong alkalis
- Susceptible to creep

FIBER-LINE® PROCESS FOR PET POLYESTER
- Coating
- Twisting
- Extrusion
- Precision Winding

FIBER-LINE® PET POLYESTER PRODUCTS
- Swellcoat® Binder Yarn
- Swellcoat® Buffer Thread
- Swellcoat® Filler Yarn
- Ripcords
- Round Sling Core Yarn

Molecular Structure

Chemical Name
Polyethylene terephthalate.

Manufacturer
FIBER-LINE® works with a variety of PET Polyester manufacturers.

History
PET is the most common thermoplastic polymer in the polyester family. The first US commercial polyester fiber production was completed in 1953 by DuPont™ under the name Dacron. It is the same polymer resin utilized in the plastic bottle industry.

Composition
PET is produced in a melt spun and drawing process. The three processes utilized in the production of PET fiber are polymerization, melt-spinning, and drawing or hot stretching the fibers based upon their elongation requirements.

Size
50 – 3000 denier.

Types
High Tenacity, Low Shrink, Ultra Low Shrink.
# PET POLYESTER BARE FIBER PERFORMANCE

<table>
<thead>
<tr>
<th>Property</th>
<th>UOM</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breaking Tenacity</td>
<td>g/d</td>
<td>9.3</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>Ratio</td>
<td>1.38</td>
</tr>
<tr>
<td>Elongation @ Break</td>
<td>%</td>
<td>14.6</td>
</tr>
<tr>
<td>Tensile Modulus</td>
<td>g/d</td>
<td>120</td>
</tr>
<tr>
<td>Moisture Regain*</td>
<td>%</td>
<td>0.4</td>
</tr>
<tr>
<td>Creep**</td>
<td>%</td>
<td>1.0 – 12.0</td>
</tr>
<tr>
<td>Shrinkage***</td>
<td>%</td>
<td>8.0 – 15.0</td>
</tr>
<tr>
<td>Melt Point</td>
<td>°C</td>
<td>256</td>
</tr>
<tr>
<td>Decomposition Temp.</td>
<td>°C</td>
<td>TBD</td>
</tr>
</tbody>
</table>

* Equilibrium moisture regain @ 55% RH  ** Creep @ 40%-58% ultimate tensile strength  *** Shrinkage in dry air @ 177 C for 30 minutes

# PET POLYESTER DATA

## High Tenacity

<table>
<thead>
<tr>
<th>Property</th>
<th>UOM</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breaking Tenacity</td>
<td>g/d</td>
<td>8.4</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>Ratio</td>
<td>1.38</td>
</tr>
<tr>
<td>Elongation @ Break</td>
<td>%</td>
<td>19.5</td>
</tr>
<tr>
<td>Tensile Modulus</td>
<td>g/d</td>
<td>70</td>
</tr>
<tr>
<td>Moisture Regain*</td>
<td>%</td>
<td>0.4</td>
</tr>
<tr>
<td>Creep**</td>
<td>%</td>
<td>1.0 – 12.0</td>
</tr>
<tr>
<td>Shrinkage***</td>
<td>%</td>
<td>3.0 – 8.0</td>
</tr>
<tr>
<td>Melt Point</td>
<td>°C</td>
<td>256</td>
</tr>
<tr>
<td>Decomposition Temp.</td>
<td>°C</td>
<td>TBD</td>
</tr>
</tbody>
</table>

## Low Shrink
ABOUT FIBER-LINE®

For over 25 years, FIBER-LINE® has provided science-driven expertise that improves the performance and the end-use processing of high performance fibers. Our products enable the search for new energy reserves and extend the life of fiber optic telecommunication cables. They also add important characteristics, such as SWELLCOAT® water-blocking, water repellence, adhesion, color, and wear and UV-resistance to these and many other applications. We believe that our ongoing commitment to protect the environment, to remain at the forefront of fiber and coating technology, and to ‘treat others as we want to be treated’ will continue to drive the success of our customers, shareholders, and employees.

LOCATIONS

Headquarters, R&D, Manufacturing
FIBER-LINE® LLC
3050 Campus Drive
Hatfield, PA  19440
+1 215.997.9181
fiber@fiber-line.com

Manufacturing Operations
FIBER-LINE® LLC
280 Performance Drive SE
Hickory, NC  28602
+1 828.326.8700
fiber@fiber-line.com

EMEA & Asia Pacific Operations
FIBER-LINE® INTERNATIONAL B.V.
Uranusweg 3
8938 AJ Leeuwarden
The Netherlands
+31(0) 58 216 75 99
info@fiber-line.com

NOTICE: The information and data contained herein do not constitute sales specifications. The product properties may be changed without notice. No liability, warranty or guarantee of product performance is created by this document. It is the Buyer’s responsibility to determine if this product is appropriate for the Buyer’s use and to ensure that the Buyer’s workplace and disposal practices are in compliance with applicable laws and regulations. No freedom from any patents or other industrial or intellectual property rights is granted or to be inferred.