



## FLEXO® PEEK

### HIGH PERFORMANCE TIGHTLY BRAIDED PEEK POLYMER FILAMENTS

### LOW OUTGASSING · VERY LIGHT WEIGHT

Similar to PPS, but with a substantially expanded operating temperature range, PEEK (PolyEtherEther-Ketone) is a high performance advanced polymer with outstanding physical properties. PEEK is inherently flame retardant, with a V-0 flammability rating, will withstand continuous use in superheated water or steam up to 500°F, and resists most acids, solvents and bases. PEEK is FDA approved as a food contact product, resists damage from radiation and will continue to perform in UHV (Ultra High Vacuum) environments. PEEK is extensively used in the aerospace, automotive, teletronic and chemical process industries, and is considered an advanced biomaterial used in medical implants and other biomedical applications. PEEK will withstand thousands of sterilization cycles without damage or degradation. Flexo® PEEK expandable sleeving is tightly braided from 10 mil filaments of pure, unfilled PEEK polymer. The sleeving expands to fit over connectors and splices, and provides a full coverage over wires hoses and cable bundles in advanced engineering applications.

#### SIZING CHART

| Nominal Size | Part #  | Min Expansion | Max Expansion | *Put-Ups |        | Available Colors | Lbs/100' |
|--------------|---------|---------------|---------------|----------|--------|------------------|----------|
|              |         |               |               | M        | L      |                  |          |
| 1/8"         | PKN0.13 | 1/16"         | 5/16"         | 225'     | 1,000' | 1                | 0.16     |
| 1/4"         | PKN0.25 | 7/64"         | 9/16"         | 200'     | 1,000' | 1                | 0.19     |
| 3/8"         | PKN0.38 | 5/32"         | 5/8"          | 125'     | 500'   | 1                | 0.31     |
| 1/2"         | PKN0.50 | 3/16"         | 15/16"        | 100'     | 500'   | 1                | 0.44     |
| 5/8"         | PKN0.63 | 1/4"          | 1 1/4"        | 100'     | 500'   | 1                | 0.51     |
| 3/4"         | PKN0.75 | 3/8"          | 1 3/8"        | 75'      | 250'   | 1                | 0.64     |

\*Put-Ups: "M" = Shop Spool and "L" = Bulk Spool

#### FEATURES

|                       |                      |
|-----------------------|----------------------|
| Material              | Polyetheretherketone |
| Grade                 | PKN                  |
| Monofilament Diameter | .010"                |
| Drawing Number        | TF001PKN-WD          |
| Cutting               | Hot Knife            |

#### COLORS



Black (BK), Natural (NT)

#### CERTIFICATIONS



**UL94V-0**



PEEK® is a registered trademark of the Victrex Corporation.



### ABRASION

|                                            |                |
|--------------------------------------------|----------------|
| Abrasion Resistance                        | <b>MEDIUM</b>  |
| Abrasion Test Machine                      | Taber 5150     |
| Abrasion Test Wheel                        | Calibrase H-18 |
| Abrasion Test Load                         | 500g           |
| Room Temperature                           | °F             |
| Humidity                                   | %              |
| Material Destroyed                         | Test Cycles    |
| Pre-Test Weight                            | mg             |
| Post-Test Weight                           | mg             |
| Test End Loss Of Mass Point Of Destruction | mg             |

### PHYSICAL PROPERTIES

|                                                      |                       |
|------------------------------------------------------|-----------------------|
| Monofilament Diameter (ASTM D-204)                   | .010"                 |
| Flammability Rating                                  | UL94V-0               |
| Recommended Cutting                                  | Hot Knife             |
| Colors                                               | 2                     |
| Wall Thickness                                       | .025"                 |
| Tensile Strength (ASTM D638 PSI)                     | 13,300                |
| Specific Gravity (ASTM D-792)                        | 1.3                   |
| Moisture Absorption % (ASTM D-570)                   | <.05                  |
| Elongation (ASTM D638 %)                             | 50                    |
| Electrical - Dielectric Strength<br>ASTM D149 V/Mil) | >500                  |
| Volume Resistivity (ASTM D257 ohm/cm)                | >4.9x10 <sup>16</sup> |
| Outgassing                                           | Low                   |

### FLAMMABILITY

|        |         |
|--------|---------|
| Rating | UL94V-0 |
|--------|---------|

### OPERATING TEMPERATURES

|                          |               |
|--------------------------|---------------|
| Melt Point (ASTM D-2117) | 633°F / 334°C |
| Maximum Continuous       | 500°F / 260°C |
| Minimum Continuous       | -94°F / -70°C |

### CHEMICAL RESISTANCE

1=No Effect 2=Little Effect 3=Affected 4=More Affected 5=Severely Affected

|                              |     |
|------------------------------|-----|
| Aromatic Solvents            | 1   |
| Aliphatic Solvents           | 1   |
| Chlorinated Solvents         | 1   |
| Weak Bases                   | 1   |
| Salts                        | 1   |
| Strong Bases                 | 3   |
| Salt Water (0-S-1926)        | 1   |
| Hydraulic Fluid (MIL-H-5606) | 1   |
| Lube Oil (MIL-L-7808)        | 1   |
| De-Icing Fluid (MIL-A-8243)  | 1   |
| Strong Acids                 | 3   |
| Strong Oxidants              | 1   |
| Esters/Ketones               | 1   |
| UV Light                     | 1   |
| Petroleum                    | 1   |
| Fungus (ASTM G-21)           | 1   |
| Halogen Free                 | Yes |
| RoHS                         | Yes |
| SVHC                         |     |