

# Tools to Help You Select the Right FLEX Product

## Selection Guide for FLEX™ Tubing Products

FLEX Tubing Products	ClearFLEX 60	ClearFLEX 70-1	FuelFLEX 65	BraidFLEX 70N	FLEX GP70	Ether-PUR FLEX 84	Ester-PUR FLEX 85	PolyFLEX 50
Resin	PVC	PVC	PVC	PVC, Reinf.	PVC	PUR Ether	PUR Ester	LDPE
Certifications	Food Grade USP VI USDA	Food Grade USP VI USDA NSF-51 3A	—	Food Grade  USDA NSF-51	Food Grade  USDA	Food Grade	Food Grade	Food Grade  USDA
Durometer (Shore)	60 (A)	70 (A)	65 (A)	70 (A)	70 (A)	84 (A)	85 (A)	50 (D)
Specific Gravity	1.19	1.20	1.23	1.20	1.21	1.12	1.20	0.92
Operating Temperature Range (°F)	-25 to 160	-10 to 175	-15 to 165	-5 to 180	-10 to 175	-70 to 175	-70 to 175	-100 to 175
Tensile Strength, psi	1650	2200	1900	2000	2400	5500	5000	1700
Color	Crystal Clear	Crystal Clear	Transparent Yellow	Clear	Crystal Clear	Transparent	Transparent	Translucent
Odor	Slight	Slight	Slight	Slight	Slight	None	Slight	Slight
Taste Imparted	None	None	N/A	None	None	N/A	N/A	None
Tear Strength	Good	Good	Good	Very Good	Good	Excellent	Excellent	Very Good
Bend Radius*	4 x O.D.	5 x O.D.	4 x O.D.	6 x O.D.	5 x O.D.	6 x O.D.	6 x O.D.	8 x O.D.
Elongation (%)	450	400	425	350	350	500	500	600
Flame Resistance	Self-Ext.	Self-Ext.	Self-Ext.	Self-Ext.	Self-Ext.	Burns	Burns	Slow Burn
Abrasion Resistance	Very Good	Very Good	Very Good	Good	Very Good	Excellent	Excellent	Good
Corrosion Resistance Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent

\* This calculation is an approximation and Finger Lakes Extrusion recommends that you test under your own conditions

### Sterilization of FLEX Brand Tubing Products:

**ClearFLEX 60** and **ClearFLEX 70-1** can be sterilized by autoclaving, gas or chemical methods.

**BraidFLEX 70N** can be sterilized by gas or chemical methods.

**Ether-PUR FLEX 84** and **Ester-PUR FLEX 85** can be sterilized by gas.

**PolyFLEX 50** can be sterilized by chemical methods.

- Autoclaving (121°C, 15 psig for 20 minutes) – Clean and rinse tubing with distilled water before autoclaving. Certain chemicals which have no appreciable effect on resins at room temperature may cause deterioration at autoclaving temperatures unless removed with distilled water beforehand.
- Gas – ethylene oxide formaldehyde
- Chemicals – benzalkonium chloride, formalin, ethanol, etc.

### Tubing Conversion Chart

FLEX Tubing Products	ClearFLEX 60	ClearFLEX 70-1	FuelFLEX 65	BraidFLEX 70N	FLEX GP70	Ether-PUR FLEX 84	Ester-PUR FLEX 85	PolyFLEX 50
Nalge Nunc International	Nalgene <sup>1</sup> 180	Nalgene 380		Nalgene 980	—		Nalgene 280	Nalgene 489
Saint-Gobain Performance Plastics Corporation	Tygon <sup>2</sup> R-3603	Tygon B-44-3/ B-44-4X/ S-50-HL	Tygon F-4040-A	Tygon B-44-4X I.B./NT-80	Vincon <sup>2</sup>	—	Tygothane <sup>2</sup>	—
Thermoplastic Processes	—	—	Excelon <sup>3</sup> GO-1480	Excelon-Braided	Excelon RNT-1065	—	—	Excelite <sup>3</sup>
J. P. Stevens	—	—	—	—	—	Stevens MP-1880	Stevens MP-1485	—
NewAge Industries	—	—	—	Nylobrade <sup>4</sup>	Clearflo <sup>4</sup>	—	Superthane <sup>4</sup>	—

<sup>1</sup> Registered trademark of Nalge Nunc International

<sup>2</sup> Registered trademarks of Saint-Gobain Performance Plastics

<sup>3</sup> Registered trademark of Thermoplastic Processes, Inc.

<sup>4</sup> Registered trademark of NewAge Industries, Inc.

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