

# Tubing for Life Sciences Applications

Entegris understands that tubing choice is critical to your bioprocessing applications. Our advanced materials expertise and custom manufacturing enable us to provide tubing solutions that meet the complex demands across upstream and downstream applications.

This information is to be used as general guidelines only. Please contact Entegris with questions on physical properties or tubing validation information.

## Standard Tubing

Product	Material class	Weldable/sealable	Durometer, Shore A	Temperature use range	ADCF or EMA/410/01 Rev 3 Compliant	Latex-free	BPA-free
AdvantaFlex® APAF-BP NewAge Industries	TPE	Yes	65	-66° to 135°C (-87° to 275°F)	Yes	Yes	Yes
AdvantaSiL® APLT NewAge Industries	Silicone	No	50	-112° to 175°C (-170° to 347°F)	Yes	Yes	Yes
AdvantaSiL® APSPG NewAge Industries	Silicone	No	50	-73° to 204°C (-99° to 399°F)	Yes	Yes	Yes
AdvantaSiL® APST NewAge Industries	Silicone	No	50	-73° to 204°C (-99° to 399°F)	Yes	Yes	Yes
C-Flex® 082, 374 Saint-Gobain	TPE	Yes	60	-67° to 135°C (-89° to 275°F)	Yes	Yes	Yes
Vysun® PVC Sunlite Plastics	DEHP – Free PVC	Yes	70	-196° to 25°C (-321° to 77°F) <sup>1</sup>	Meets EU reg 722/2012 and 21CFR 700.27	Yes	Yes

Product	REACH	RoHS	FDA- (21 CFR177)	USP <661>	USP <85>	USP <87>	USP <88>/ USP Class VI	ISO 10993-	USP 788
AdvantaFlex® APAF-BP NewAge Industries	Yes	Yes	177.2600	Yes	Yes	Yes	Yes	4, 5, 10, 11	Yes
AdvantaSiL® APLT NewAge Industries	Yes <sup>2</sup>	Yes	177.2600	Yes	Yes	Yes	Yes	5, 10, 11	Yes
AdvantaSiL® APSPG NewAge Industries	Yes <sup>2</sup>	Yes	177.2600	Yes	Yes	Yes	Yes	3, 4, 5, 11	Yes
AdvantaSiL® APST NewAge Industries	Yes <sup>2</sup>	Yes	177.2600	Yes	Yes	Yes	Yes	3, 4, 5, 11	Yes
C-Flex® 082, 374 Saint-Gobain	Yes	Yes	ND	Yes	Yes	Yes	Yes	3, 4, 5, 11	ND
Vysun® PVC Sunlite Plastics	Yes	Yes	ND	ND	ND	ND	Yes	5, 10, 11	ND

<sup>1</sup>Determined by Entegris, not manufacturer's specification

<sup>2</sup>Contains a substance of very high concern (SVHC). Contact Entegris for more information

ND = No data

## Alternative Tubing

Product	Material class	Weldable/sealable	Durometer, Shore A	Temperature use range	ADCF or EMA/410/01 Rev 3 Compliant	Latex-free	BPA-free
Clearflo® 70 NewAge Industries	PVC	Yes	70	-40° to 79°C (-40° to 174°F)	ND	Yes	Yes
EVA Tubing	EVA	Yes <sup>1</sup>	ND	-196° to 25°C	Yes	Yes	Yes
Masterflex I/P® 82 MasterFlex	Silicone	No	68	-50° to 230°C (-58° to 446°F)	Yes	ND	ND
Pharma-65 DuPont	Silicone	No	65	-50° to 250°C (-58° to 482°F)	Yes	Yes	Yes
PharMed® BPT Saint Gobain	PP-TPE	No	64	-51° to 132°C (-60° to 270°F)	Yes	Yes	Yes
STHT-C Saint-Gobain	Silicone	No	50	-62° to 260°C (-80° to 500°F)	Yes	Yes	Yes
Tygon® 3350 Saint Gobain	Silicone	No	50	-80° to 200°C (-112° to 392°F)	Yes	ND	ND

Product	REACH	RoHS	FDA- (21 CFR177)	USP <661>	USP <85>	USP <87>	USP <88>/ USP Class VI	ISO 10993-	USP 788
Clearflo® 70 NewAge Industries	Yes	Yes	ND	ND	ND	ND	Yes	ND	ND
EVA Tubing	Yes	Yes	ND	Yes	Yes	Yes	Yes	4, 5, 6, 10, 11	ND
Masterflex I/P® 82 MasterFlex	Yes	Yes	177.2600	ND	ND USP <151>	ND	Yes	ND	ND
Pharma-65 DuPont	Yes <sup>2</sup>	Yes	177.2600	Yes	Yes	Yes	Yes	3, 4, 5, 6, 10, 11	Yes
PharMed® BPT Saint Gobain	Yes	Yes	177.2600	ND	Yes	Yes	Yes	ND	Yes
STHT-C Saint-Gobain	Yes	Yes	177.2600	Yes	ND USP <151>	Yes	Yes	3, 4, 10, 11, 18	Yes
Tygon® 3350 Saint Gobain	Yes <sup>2</sup>	Yes	177.2600	Yes	Yes	Yes	Yes	3, 4, 10	ND

<sup>1</sup>Contact Entegris for welding and sealing instructions

<sup>2</sup>Contains a substance of very high concern (SVHC)

ND = No data

## Tubing Characteristics

Product	Peristaltic pump life	Autoclave stable	Gas permeation	Animal-derived components	Visual clarity	Gamma stable
AdvantaFlex APAF-BP NewAge Industries	Good	Yes	Very low	No	Transparent	Yes
AdvantaSil APSPG NewAge Industries	Excellent	Yes	Moderate	No	Translucent	Yes
AdvantaSil APST NewAge Industries	Fair	Yes	Moderate	No	Translucent	Yes
C-Flex® 082, 374 Saint Gobain	Good	Yes	Very low	No	Transparent	Yes
EVA Tubing	Poor	ND	Low	No	Transparent	Yes
Pharma-65 DuPont	Very good	Yes	Moderate	No	Translucent	Yes
PharMed BPT Saint Gobain	Excellent	Yes	Very low	Yes	Opaque	Yes
Tygon 3350 Saint Gobain	Fair	Yes	Moderate	No	Translucent	Yes
Vysun® PVC Sunlite Plastics	Poor	Yes	Moderate	Meets EU reg 722/2012 and 21CFR 700.27	Transparent	Yes

ND = No data

### FOR MORE INFORMATION

Please call your Regional Customer Service Center today to learn what Entegris can do for you. Visit [entegris.com](https://www.entegris.com) and select the [Contact Us](#) link to find the customer service center nearest you.

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