

## Vena® Flexip

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### Limitations

Respect the bending radius and work pressure established values.

This product is not recommended for the transport of abrasive particles.

### Regulations

Inner layer of Flexip is produced in compliance with:

- US FDA Standard 21 CFR 177.2600.
- USP Class VI <88> in vivo test, 121°C.
- ResAp 2004 (5), according to Reg 1935/2004/EEC, and Reg10/2011/EEC with simulants A (10% of ethanol) and simulant D2 (olive oil).

Platinum cured silicone produced in compliance with:

- US FDA Standard 21 CFR 177.2600.
- German BfR Standard part XV.
- USP Class VI <88> in vivo test, 121°C.
- ISO 10993-4, 5, 6&10.
- ResAp 2004 (5), according to Reg 1935/2004/EEC, and Reg 10/2011/ECC.
- European Pharmacopeia 3.1.9
- 3A Sanitary Standard 18-03 Class I (material).

This hose is in accordance with EU Directive 2002/95/ECC for Restriction of the use of hazardous substances (RoHS)

### Applications

This hose is specially recommended for the transport of liquid or semi-liquid fluids in the food, cosmetic, chemical and pharmaceutical industries. It has good resistance specially in fatty or oily foods and glycols, as well as alcoholic beverages.

The inner layer for this hose is made of fluoroelastomers and PTFE particles, which makes it have a good resistance to both acidic and basic CIP cleaning solutions.

It is recommended especially when a smaller bending radius is required. These hoses are able to transport liquid or semi-liquid foodstuffs at high temperatures by impulsion or suction, since their design can resist pressure or vacuum.

Shapes such as elbows and curvatures can also be manufactured to adapt them to any installation.

### Properties

- Completely non-toxic.
- White and smooth inner and outer appearance.
- Can be equipped with 316L stainless steel fittings on each end with a roughness value of less than 0.8 µm (or 0.5 µm on request).
- Operational temperature ranges from -20°C (-4°F) to +175°C (347°F), it may reach up to +200°C (372°F) during short periods of time.
- The standard manufacturing length is 4 meters long (13.12 ft.), but in specific diameters a length of 6 meters (19.69 ft) can be manufactured.
- The vacuum resistance hose is 0.91bar (13.23psi).
- It can be cleaned with steam or SIP process at 130°C and CIP process – acidic and basic under demanding conditions.

### Technical Specifications



Inner		Wall thickness		Working Pressure		Bursting Pressure		Bending Radius	
mm	inch	+1/ -0.5 mm	+0.04/ -0.02 inch	Bar at 20°C	Psi at 68°F	Bar at 20°C	Psi at 68°F	mm	inch
6	¼	5.5	0.22	32.7	474.4	98.1	1423.2	29	1.14
8	5/16	5.5	0.22	31.2	452.0	93.5	1356.0	31	1.22
10	3/8	5.5	0.22	29.7	430.3	89.0	1290.8	34	1.34
13	½	5.5	0.22	27.5	398.9	28.5	1196.7	39	1.54
16	5/8	5.5	0.22	25.4	369.0	76.3	1107.1	45	1.77
19	¾	5.5	0.22	23.5	340.6	70.5	1021.8	54	2.13
22	7/8	5.5	0.22	21.6	313.7	64.9	941.0	60	2.36
25	1	5.5	0.22	19.9	288.2	59.6	864.5	68	2.68
32	1 ¼	5.5	0.22	16.2	234.5	48.5	703.4	94	3.70
38	1 ½	5.5	0.22	13.4	194.8	40.3	584.4	112	4.41
51	2	5.5	0.22	8.9	129.1	26.7	387.2	144	5.67
63	2 ½	5.5	0.22	6.4	92.9	19.2	278.8	181	7.13
76	3	6.0	0.24	5.5	80.4	16.6	241.1	232	9.13

## Construction

This reference is manufactured with a hybrid inner layer between fluoroelastomers and PTFE, with three polyester fabric reinforcements and a stainless-steel wire spring, everything encased inside the hose.

## Use precautions

- The extreme working conditions or the use of the materials with low compatibility with Flexip can attack the inner surface of the hose. It is advisable to inspect the inner appearance for cracks or swelling, and replacement of the hose, if necessary.
- Hose cover: Should be inspected over the entire length for signs of hardening, abrasion, cuts, kinking or crushing.

### Chemical compatibility and cleaning

This following chart is purely informative and does not imply any responsibility of Venair. Chemical compatibility will depend on the conditions of the customer, such as the temperature, immersion time, etc. For further information you can contact our specialists.

	Immersion Medium	Compatibility
		FLEXIP
<b>ACIDS</b>	Acetic acid 5%	A
	Hydrochloric acid 32%	A
	Lactic acid	A
	Nitric acid 10%	A
	Phosphoric acid 20%	A
	Sulfuric Acid 20%	A
	<b>BASES</b>	Caustic soda
Potassium hydroxide		C
<b>SALTS</b>	Calcium salts	A
	Sodium chloride 10%	A
<b>SOLVENTS</b>	Acetone	D
	Butanol	B
	Heptane	A
	Isopropyl alcohol	B
<b>OTHERS</b>	Ethylene glycol	A
	Glycerine-glycol	A
	Propylene-glycol	A
	Sodium laureth sulfates 70%	A
<b>CLEANING MEDIUMS</b>	Urea 40%	A
	Acid CIP 3%	A
	Alkaline CIP 3%	A
	Chlorinated alkaline CIP 3%	A
	Hot water	A

	Immersion Medium	Compatibility
	<b>FOOD PRODUCTS</b>	Beer
Beet sugar liquors		A
Butter		A
Chocolate		A
Citric acid		A
Coca-cola		A
Cocoonut oil		A
Coffee		A
Corn oil		A
Lard		A
Milk		A
Olive oil		A
Vinegar		A
Whisky		A

Media	Concentration	Temperature
<b>Hot Water</b>	-	Up to 95°C
<b>Steam</b>	-	Up to 130°C - max 30 min
<b>Caustic Soda</b>	1%	Up to 80°C
	3%	Up to 25°C
<b>Nitric acid</b>	0,5%	Up to 80°C
	2%	Up to 65°C
<b>Peracetic acid</b>	3%	Up to 80°C

Where A is excellent, B is good, C is fair and D is not recommended.