

## VENAFLON HF-X CONDUCTIVE ANTISTATIC HOSE

HOSES › Pipes for the pharmaceutical industry › SILICONE hoses for the pharmaceutical industry

Chemical resistant silicone hose  
with USP class VI certificate and PFA internal layer.



### APPLICATIONS

recommended for the transport of liquids or semi-liquids of food or pharmaceutical products by impulse or suction where high conductivity is required to avoid electrostatic charges. Suitable for a wide range of applications thanks to the construction that gives it a balance between resistance and lightness.

It is particularly suitable for the transport of liquid or semi-liquid fluids in the food, cosmetic, chemical and pharmaceutical industries. This tube has a wide range of application thanks to its construction which gives it a balance between strength and lightness. The inner layer of this tube is made of PFA (Perfluoroalkoxy) which has high compatibility with highly aggressive chemicals. This tube is capable of transporting liquid or semi-liquid foods by pulse or suction, as its design can withstand both pressure and vacuum.

### Property

- Odourless, tasteless and completely non-toxic.
- High flexibility
- The internal PFA layer of this tube has a resistivity lower than  $R < 10^6 \Omega$
- Black and smooth appearance of the inner PFA layer, translucent and smooth appearance of the outer silicone layer.
- Can be equipped with 316L stainless steel fittings on each end with a roughness value less than  $0.8 \mu\text{m}$  (or  $0.5 \mu\text{m}$  on request).
- On request it can be equipped with Clamp fittings with a conductive PFA cover inside.
- Operating temperature range from  $-30^\circ$  to  $+150^\circ\text{C}$ .
- The hose is produced with a maximum length of 20m.
- The vacuum resistance is 0.9 bar



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## CERTIFICATIONS

- US FDA Standard 21 CFR 177.1550
- USP Class VI in vivo tests
- USP Class VI In vitro test
- ISO 10993-5, 10 and 11
- Reg. 1935/2004/EEC and Reg. 10/2011/EEC
- Material used in accordance with EU Directives 2015/863 regarding restrictions on use with critical substances (RoHS3)

## Construction

This tube is manufactured with a black conductive ( $R < 10^6 \Omega$ ) inner layer of PFA (perfluoroalkoxy), polyester reinforcements and a coated stainless steel spring coil.

Technical information for explosive atmospheres, obligations:

- This product falls within the scope of the ATEX Directive 94/9/EC as it is a product that does not have its own ignition source.
- An end-to-end electrical connection is still necessary to guarantee electrical continuity; the metal helix of the pipe must be electrically connected to both end fittings and therefore it is necessary to correctly connect the pipe to the earth with both ends of the pipe.
- This hose cannot be used for the transport of explosive materials.

## Use and precautions

- O-L grade antistatic hoses are acceptable in most circumstances, but should be avoided immediately downstream of highly charged devices such as high-performance fine filters that can generate more than 10  $\mu\text{A}$  of current (clause 7.7.3.5 of IEC / TS 60079-32-1: 2013).
- Where the charge generation rate may exceed 10  $\mu\text{A}$ , O-L grade antistatic hoses may not be able to safely dissipate charges. In this case, use O-L or O-CL grade conductive tube.
- This hose cannot be used with pneumatic conveying of bulk materials. For such pneumatic transport the leakage resistance from any point of the inner wall of the tube must be less than 100 MO (clause 9.3.3 of IEC / TS 60079-32-1: 2013).
- The end-to-end strength of the tube should be checked regularly to ensure this bond remains intact. His

we recommend carrying out this check before each use.

- Prolonged friction on the surface of the pipe is not permitted.
- The pipe must be cleaned of flammable products.
- The hose should be inspected along its entire length for signs of hardening, abrasion, cuts, kinks, crushing, cracks, scratches, breaks or leaks. It is recommended to carry out this check before each use. These faults require replacement of the affected hose.

## Configurations

**X** : Conductive black PFA ( $R < 10^6 \Omega$ )

**HR** : abrasion resistant EPDM compound cover

**FULL-X** : fully conductive construction ( $R < 10^9 \Omega$ )

DIAMETER INTERNAL mm	WALL THICKNESS ISO 1307 +/- 0.80mm	OPERATING PRESSURE ISO 1402 Bar at 20°C	RADIUS OF CURVATURE mm
13	6	10	120
19	6	10	120
25	6	10	150
32	6	10	200

38	6.5	10	250
51	8	10	300
63.5	8	5	380
76	8	5	460