

## ABRASIL-X TUBE white/black conductive

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

Recommended hose for suction and transport in the food and pharmaceutical industries. Generally acceptable for pneumatic conveying of flammable and non-flammable liquids, bulk materials and for the suction of all types of abrasive particles. Also recommended for conveying liquids or semi-liquids in the food, cosmetic, pharmaceutical and chemical industries.

It is especially recommended when the internal product is abrasive. It has a smooth appearance both inside and outside.

### Property:

Completely non-toxic tube. Black and smooth inner layer, white and smooth outer layer. The inner layer of the tube has a resistivity of less than 107 Ω. It 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).

Operating temperature range -20°C (-4°F) to +90°C (194°F), with the possibility of reaching +120 °C (248 °F) for short periods.

The standard production length is 4 meters (13.12 feet), but for specific diameters it is possible to reach a length of 6 meters (19.69 feet).

It can be cleaned with steam or SIP process at 120°C.

Volume loss of 40-50mm³.

**Limitations:** Observe the established values for the bending radius and the operating pressure.

### Regulations - Abrasil is produced in compliance with:

- US FDA Standard 21 CFR 177.2600
- ResAp 2004 (5), according to Reg. 1935/2004/EEC and Reg. 10/2011/EEC
- This tube complies with the RoHS Directive 2002/95/EEC for the restriction of the use of certain hazardous substances and its subsequent amendments, including RoHS2 Directive 2011/65/EU and RoHS3 Directive 2015/863



[Mastertubi.it/q?1604](http://Mastertubi.it/q?1604)

Diameter Internal		Thickness of wall	Pressure of exercise	Pressure of explosion	Radius of curvature
mm	inch	mm	bar at 20°C	bar at 20°C	mm
6	1/4"	5.0	14.5	43.5	28.6
8	5/16"	5.0	14.1	42.4	31.4
10	3/8"	5.0	13.7	41.2	34.4
13	1/2"	5.0	13.2	39.6	39.1
16	5/8"	5.0	12.7	38.0	44.3
19	3/4"	5.0	12.1	36.4	49.7
22	7/8"	5.0	11.6	34.8	55.6

25	1"	5.0	11.1	33.3	61.8
32	1"1/4	5.0	10.0	30.0	77.7
38	1"1/2	5.0	9.1	27.3	92.9
51	2"	5.0	7.3	22.0	130.8
63	2"1/2	5.0	5.9	17.7	171.8
76	3"	5.5	4.6	13.8	222.8
102	4"	5.5	2.7	8.2	345.2

### Construction

This model is made with two polyester fabric reinforcements and a metal wire spring, all enclosed inside the tube.

### Classification of hose grades ATEX standard Directive 2014/34/EU:

This reference falls outside the scope of the ATEX Product Directive as it is a product without its own ignition source.

### Electrical characteristics information:

- ISO 8031:2020/EN12115 (if complete with end fittings)  $R < 1000$
- ISO 8031:2020 & IEC/TS 60079 32-1:2013 Antistatic on the inner lining only  
(with built-in antistatic layer,  $10^9 \leq R \leq 10^{10} \Omega$ )

### Explosive atmosphere inside the tube

ATEX ZONES:

Zone 0-20 (Class I and II D1)

Zone 1-21 (Class I and II D1)

Zone 2-22 (Class I and II D2)

According to IEC/TS 60079-32-1:2013 the tube can be classified as "Acceptable" for flammable liquids with high conductivity ( $> 10,000 \text{ pS/m}$ ) and as "Generally acceptable"-1 for liquids with medium and low conductivity (

### Explosive atmosphere outside the tube

ATEX ZONES:

Zone 0-20 (Class I and II D1)

Zone 1-21 (Class I and II D1)

Zone 2-22 (Class I and II D2)

**A specific risk analysis is required according to the point "Use precautions"**

1 - "Generally acceptable". QL grade anti-static tubes are acceptable in most circumstances, but should be avoided immediately downstream of highly charged devices such as high flow fine filters that can generate more than  $10 \mu\text{A}$  of current (IEC/TS 60079-32-1:2013, clause 7.7.3.5).

? Where the charge generation rate may exceed  $10 \mu\text{A}$ , Antistatic QL. QL grade hoses may not be able to dissipate charges safely. In this case, QL or Q-CL grade conductive hose should be used.

The use of the CE mark and the ATEX logo on these hoses is prohibited.

Continuous electrical connection