airsan insulated antibacterial hose

AIRSAN INSULATED ANTIBACTERIAL HOSE

FEATURES

Flexible pipeline, made with exclusive technology; the pipeline is made of the following materials starting from the inside to the outside:
- Film of polyolefin resins additivated with antibacterial and anti-mold master,
- Built-in spiral made of harmonic steel wire,
- 4 mm thick thermal insulation layer made of cross-linked polyethylene and closed-cell foam,
- External protection made of additive polyolefin resin film.
The ass iment of materials, in order to construct the flexible conduit, does not involve the use of adhesive chemicals or adhesives.

Color:
gray.

Reaction to fire:
- class 1 (DM 26/06/84),
- homologation no. RE1205C20D100011,
- EN class B-s2, d0 (13501-1:2009),

Max. pressure:
2000 Pa.

Max air speed:
20 m/s.

Operating temperature:
-20°C ...+ 90°C.

Minimum radius of curvature:
1.2 ÷ 1.8 times the diameter (depending on diameters).

Length:
10 meters of hose per package.

IMPORTANT NOTE: For minimum pressure drop (as in graph below) the pipe must be installed of laid nearly straight and with taut walls.

GRAPHICS

"AIRSAN" pipe quick selection chart.

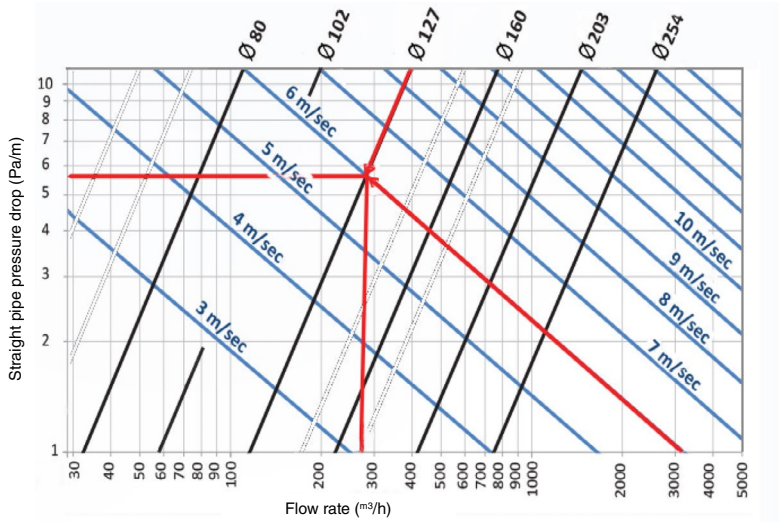


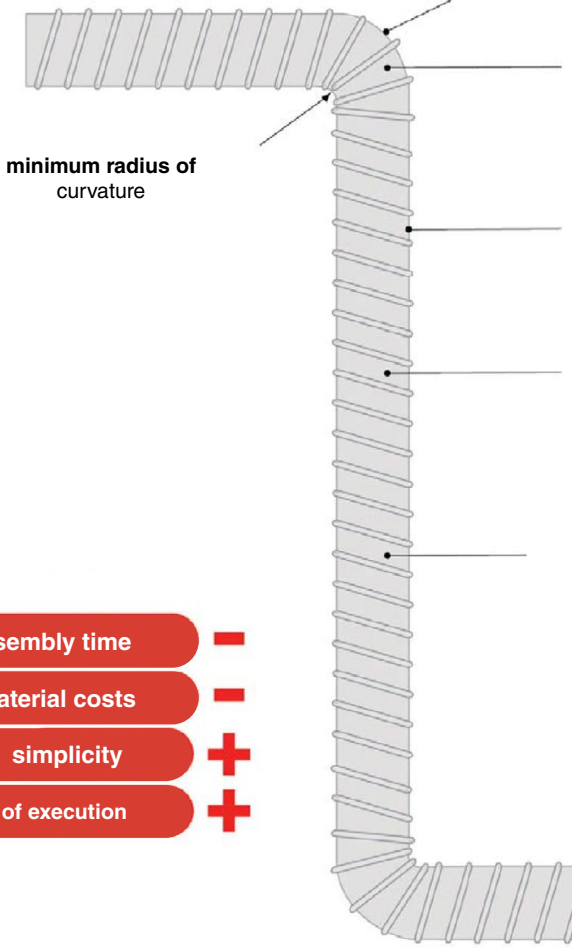
TABLE WITH PHYSICAL-MECHANICAL PROPERTIES OF CROSS-LINKED POLYETHYLENE FOAM THICKNESS 4 MM CONSTITUENT OF UNCOATED "AIRSAN" PIPE

Physicomechanical properties	U.M.	Method	Values
Density	Kg/m³	ISO 845	100
Combustion class	-	IT: D.M. 26/06/84 EU: EN 13501-1:2009	CL1 Class B-s2, d0
Conductivity coefficient thermal at 0°C (lambda)	W/mK	UNI EN 12664:2002	0,032
Conductivity coefficient thermal at 10°C (lambda)	W/mK	UNI EN 12664:2002	0,033
Conductivity coefficient thermal at 30°C (lambda)	W/mK	UNI EN 12664:2002	0,035
Conductivity coefficient thermal at 60°C (lambda)	W/mK	UNI EN 12664:2002	0,038
Chemical Agent Assault	-	Surface application external of the specific agent Chemical and verification of any changes after 48 hours	No modification and/or damage for:ETHANOL AMMONIACA DEGREASER HIGH CONC. COOLANT
Maximum peak operating temperature	°C e min.	Identification of the maximum peak temperature bearable by the pipe and all its behaviors	+115° ; no more than 2 min.
Example usage limits for the purpose of Avoid the risk of condensation on the outer wall	°C e %	OPTION 1 (Ø102) OPTION 2 (Ø102)	Temp. air flow 15° Temp. outdoor 34° Um. room rel. 70% Temp. Airflow 10° Temp. outside 28° Um. room rel. 70%
Channel holding	-	EN 12237 - EN 1507 - EN 12599 EN 13180	Class D COMPLIANCE

TABLE WITH CHARACTERISTICS (TECHNICAL DATA) OF AIRSAN PIPE VARYING BY DIAMETER

Ø (mm)	Working pressure (bar)	Operating depression (bar)	Radius of curvature (mm)	Weight (gr/ml)
80	0.50	0.09	56	154
102	0.40	0.08	70	200
127	0.40	0.07	92	254
160	0.15	0.05	110	331
203	0.15	0.04	140	492
254	0.08	0.03	175	600

INSTALLATION FEATURES



no limitation in the degrees of duct curvature

No pressure drop because the inner section remains unchanged even at the bending points

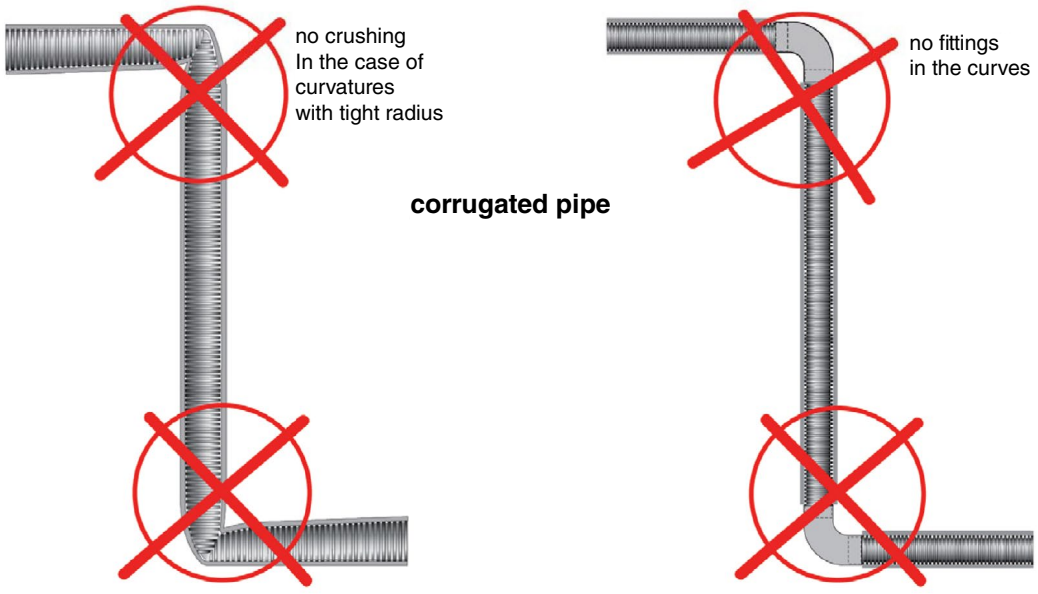
minimum radius of curvature

Single-wall closed-cell cross-linked polyethylene foam (coefficient R=o.12 ^{m2K}/W)

Lightweight and self-supporting due to the ribbing with harmonic steel spiral, which also allows the internal section to remain unchanged at the bending points

Prevention: **to mold** growth and the proliferation **of bacteria and viruses** thanks to polyolefin **film with Sanitzed®** technology
additive

assembly time	−
material costs	−
simplicity	+
speed of execution	+



no crushing
In the case of curvatures with tight radius

corrugated pipe

no fittings
in the curves

CERTIFICATIONS

CERTIFICATIONS

SANIFICATION

TECNOLOGIA SANITIZED
is produced with film
new generation polyolefin
additivated with active ingredient
"Antibacterial Sanitized" capable of.
Break down the microbial and
bacterial load
present within the ducts and conveyed
by air, for the safety of humans and
the environment.

NO BACTERIA NO MILDEW

REACTION TO FIRE

IT	Classe 1 (D.M. 26/06/84) Omologa n.: RE1205C20D100011
EU	Classe B-s2, d0 (EN 13501-1:2009)

GREEN BUILDING.

Thanks in part to the support and backing of GreenMap, **Airsan** products contribute to credits from major international building sustainability rating systems:

LEED
Contributes to the following credits:
IP, EA, MR

WELL
Contributes to the following credits:
MATERIALS, COMMUNITY

BREEAM
Contributes to the following credits:
MAN, ENE, WST

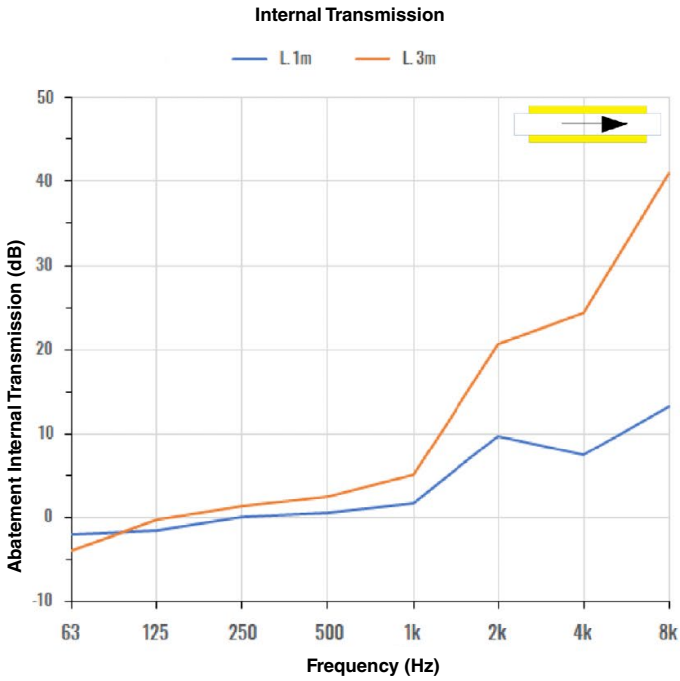
APPLICATIONS

OEM	Residential	Smooth surfaces	Flexibility	Easy Pack	Self-extinguishing	Mold resistance	Resistance to microorganisms	Resistance to uncorking
Calibrated Diameters*	REACH Certificate	RoHS Certificate	Halogen-free	Building	Transportation	Conditionam. air	VMC	
Passaggiu a murare	VMC means Transport	VMC means operators	Prolonged anti condensation	Naval				

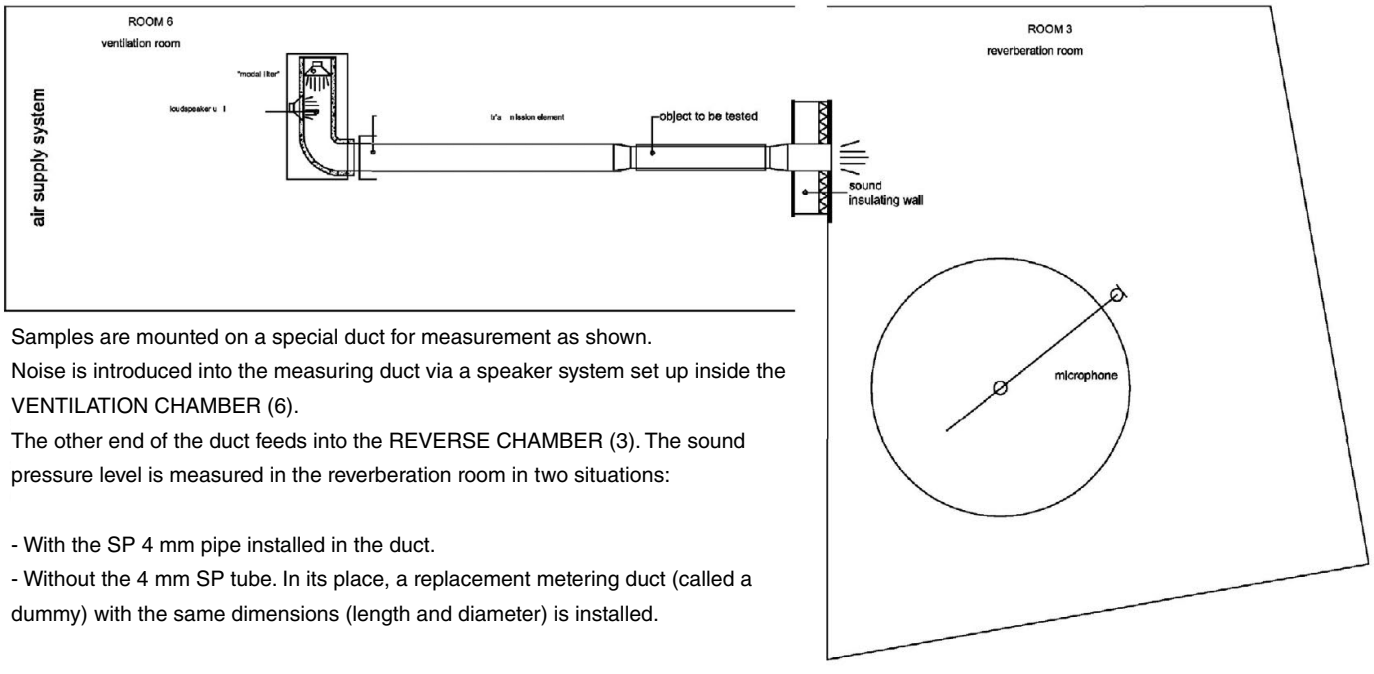
INDOOR ACOUSTIC TRANSMISSION TEST - ISO 7235:2003

The data in the table opposite identifies the noise abatement value in relation to the internal pipe transmission on the **4 mm thick hose model.**

We would like to point out that the data were obtained through **audits by certified or qualified external laboratories and followed by testing in accordance with ISO 7235:2003**.
However, they can give a general assessment of the tube's functionality and the performance it can provide under real operating conditions.
The results reported are the result of tests conducted with a white noise source in the frequencies between **63 Hz and 8000 Hz.**



SP 4MM		Attenuation Internal dB - Freq. [Hz] - ISO 7235:2003							
ID [mm]	L. [m]	63	125	250	500	1k	2k	4k	8k
102	1	-2	-1,6	0,1	0,5	1,6	9,7	7,4	13,2
	3	-4	-0,2	1,3	2,4	5,1	20,7	24,4	40,9



Samples are mounted on a special duct for measurement as shown.
Noise is introduced into the measuring duct via a speaker system set up inside the VENTILATION CHAMBER (6).
The other end of the duct feeds into the REVERSE CHAMBER (3). The sound pressure level is measured in the reverberation room in two situations:

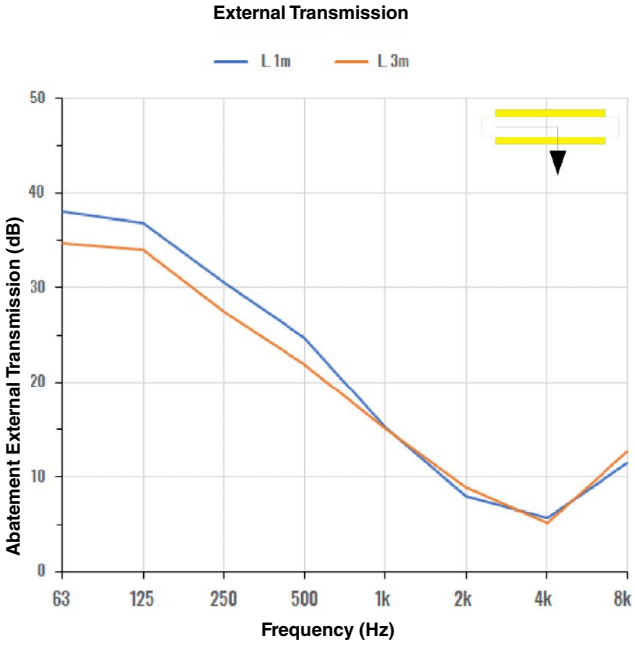
- With the SP 4 mm pipe installed in the duct.
- Without the 4 mm SP tube. In its place, a replacement metering duct (called a dummy) with the same dimensions (length and diameter) is installed.

The difference between the two values expresses the spread of sound pressure inside the pipe.

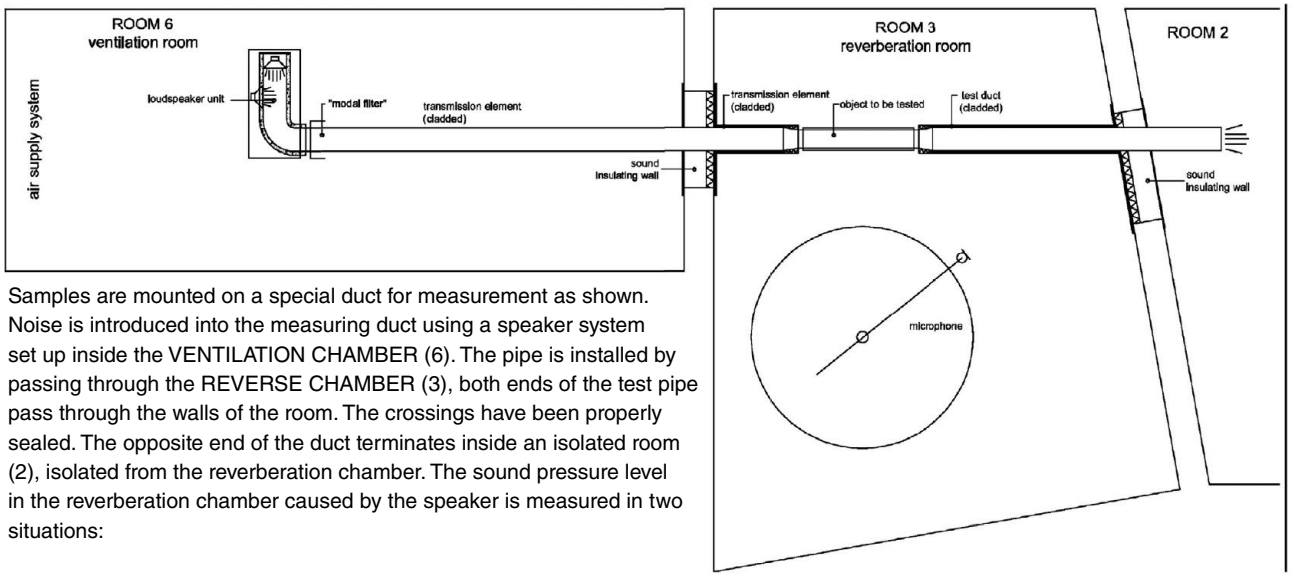
EXTERNAL SOUND TRANSMISSION TEST - ISO 7235:2003

The data in the table opposite identify the noise abatement value in relation to outward transmission to the pipe on the **4 mm thick hose model.**

We would like to point out that the data were obtained through **audits by certified or qualified external laboratories and followed by testing in accordance with ISO 7235:2003**.
However, they can give a general assessment of the tube's functionality and the performance it can provide under real operating conditions.
The results reported are the result of tests conducted with a white noise source in the frequencies between **63 Hz and 8000 Hz.**



		External Attenuation dB - Freq. [Hz] - ISO 7235:2003							
ID [mm]	L. [m]	63	125	250	500	1k	2k	4k	8k
102	1	38	36,8	30,5	24,7	15,2	8	5,7	11,4
	3	34,7	34	27,4	21,9	15,1	8,9	5,2	12,7



Samples are mounted on a special duct for measurement as shown. Noise is introduced into the measuring duct using a speaker system set up inside the VENTILATION CHAMBER (6). The pipe is installed by passing through the REVERSE CHAMBER (3), both ends of the test pipe pass through the walls of the room. The crossings have been properly sealed. The opposite end of the duct terminates inside an isolated room (2), isolated from the reverberation chamber. The sound pressure level in the reverberation chamber caused by the speaker is measured in two situations:

- With the SP 4 mm pipe installed in the measuring duct in the reverberation chamber;
- Without the 4 mm SP pipe and an open test pipe.

The difference between the two values expresses the ability of the pipe to reduce sound transmission through the pipe walls to the outside.

REV 11/2024

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