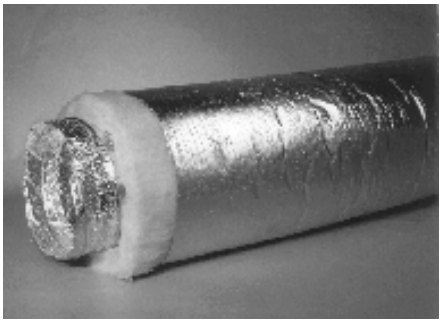
www.growland.net / www.growland-hydroponics.com
https://www.growland.fr / https://www.growland.co.uk
https://www.growland.es / https://www.growland.at
https://www.growland.nl / https://www.growland.it
https://www.growland.se / https://www.growland.pl

ACOUSTICALLY INSULATED SONODEC®



The **SONODEC®** series consists of a perforated aluminum laminate inner duct, a polyester barrier to prevent the diffusion of glass wool particles, thermically and acoustically insulated with a glass wool layer and provided with an outer jacket strengthened with glass fibre.

The **SONODEC®** fulfills all the requirements and are classified as specified within:
EN 13180 :"*Ventilation for buildings-Ductwork- Dimensions and mechanical requirements for flexible ducts*"

To select the appropriate thermically and acoustically insulated product, consult the tables on the next page.

Applications in practice

- Air-conditioning systems
- Air supply systems
- Preventing condensation in air ventilation systems
- Decreasing of machine noises
- Consult the selection tables

Restrictions in the range of applications
The **SONODEC®** ducts are not suitable for transporting air with a high concentration of acid and base. Neither are the **SONODEC®** ducts suitable for discharging combustion gases.

PLEASE NOTICE:
The consultant is responsible for the actual installation and mounting of the product.
The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

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	SONODEC® 25	SONODEC® 250	SONODEC® 250CE
Mechanical properties			
Temperature range (°C) inner duct outer duct	 -30 - +140 -30 - +140	 -30 - +250 -30 - +140	 -30 - +250 -30 - +140
Maximum operating pressure (Pa)	+2500	+2500	+2500
Maximum air velocity (m/s)	30	30	30
Diameter range (mm)	76 - 508	65 - 635	102 - 508
Fire classes according to			
The Netherlands (NEN 6065/6066)	1	1	x
Germany (DIN 4102)	B2	B1	x
France (CSTB)	M1	M0/M1	M0/M1
Switzerland (BKZ)	x	5.2	x
United Kingdom (BS 476)	6, 7 and 20	6, 7 and 20	x
Austria (B3800)	B1	B1	x
Italy (CSI)	1-0	1-0	x
Technical data			
Article code	DS{Ø}/Length	DSX{Ø}/Length	DSXCE{Ø}/Length
Material structure	see product specific properties		
Construction	see product specific properties		
Wire spacing inner duct upto Ø 102 Ø 102 and larger	 25 mm 36 mm	 25 mm 18[1)]mm	 - 36 mm
Minimal bending radius	0.54 x Ø + ↕	0.58 x Ø + ↕	0.54 x Ø + ↕
Standard length (meters)	10	10	10
Standard color	aluminium	aluminium	aluminium

x = not been tested
↕ = thickness of the glass wool
1) = two different wires have been used alternately

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Product specific properties

SONODEC® 25

The **SONODEC® 25** is also available, on request, with a 50 mm glass wool layer, the article number is: DS50{Ø}

- Material structure:
  - perforated aluminum laminate / barrier / glass wool / aluminum laminate
- Construction:
  - inner duct :aluminum, polyester laminate
  - barrier :closed polyester film
  - glass wool blanket :25 (or 50) mm, 16 kg/m^3
  - outer jacket :aluminum, polyester laminate
- R-value glass wool :0.69 (25 mm) or 1.4 (50 mm) m^{2}K/W (ASTM C177-76)

Sound attenuation

SONODEC® 25		(Test report nr. AB323-1 Peutz bv - The Netherlands)					
D_n (mm)	L (mtr)	Attenuation, dB - Mid-frequency, Hz					
		125	250	500	1000	2000	4000
082	1	16	26	33	38	28	17
	2	21	37	48	53	46	29
	3	29	45	49	54	57	38
102	1	9	19	32	37	31	21
	2	19	33	52	53	49	36
	3	25	39	50	52	54	40
127	1	12	20	21	25	29	17
	2	17	31	44	45	46	26
	3	23	46	44	47	51	34
160	1	17	22	22	27	19	14
	2	31	39	34	38	31	20
	3	29	43	41	46	39	27
203	1	7	15	17	20	16	13
	2	20	34	32	35	30	22
	3	18	40	38	41	39	30
254	1	16	16	16	16	13	10
	2	26	31	28	33	25	18
	3	32	36	32	37	34	27
315	1	11	12	12	14	11	7
	2	28	25	22	27	22	15
	3	27	32	28	34	28	19
457	1	12	10	8	8	6	8
	2	20	17	15	16	13	12
	3	25	22	21	25	19	16
508	1	8	8	8	9	6	7
	2	20	17	16	17	11	11
	3	24	22	20	25	15	14

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Product specific properties

SONODEC® 250

The **SONODEC® 250** is also available, on request, with a 50 mm glass wool layer, the article number is: DSX50{Ø}

- Material structure:
  - perforated aluminium laminate / barrier / glass wool / aluminium laminate
- Construction:
  - inner duct :aluminum, polyester laminate
  - Barrier :closed polyester film
  - glass wool blanket :25 (or 50) mm, 16 kg/m^3
  - outer jacket :aluminum, polyester laminate
- R-value glass wool :0.69 (25 mm) or 1.4 (50 mm) m^{2}K/W (ASTM C177-76)

Sound attenuation

SONODEC® 250		(Test report nr. AB323-2 Peutz bv - The Netherlands)					
D_n (mm)	L (mtr)	Attenuation, dB - Mid-frequency, Hz					
		125	250	500	1000	2000	4000
082	1	16	25	34	38	30	20
	2	22	37	48	54	46	30
	3	30	43	41	43	55	43
102	1	11	25	31	36	23	15
	2	17	31	51	50	38	26
	3	20	44	51	52	51	33
127	1	11	19	23	27	25	19
	2	17	31	43	43	35	22
	3	21	40	45	48	47	27
160	1	15	26	22	27	18	13
	2	22	38	35	39	29	20
	3	33	43	39	43	39	27
203	1	6	13	15	18	11	10
	2	15	31	32	38	21	18
	3	16	36	40	42	28	24
254	1	9	11	12	10	7	11
	2	21	24	24	22	13	15
	3	29	33	31	30	19	24
315	1	8	8	8	7	6	8
	2	16	15	14	13	9	13
	3	23	23	21	19	12	17
457	1	8	8	6	6	5	7
	2	18	15	14	12	8	10
	3	24	21	20	18	11	15
508	1	7	8	7	7	6	7
	2	-	-	-	-	-	-
	3	-	-	-	-	-	-

SONODEC® 250 CE

- Material structure:
  - perforated aluminium laminate / barrier / glass wool / aluminium laminate

- Construction:
  - inner duct :aluminum, polyester laminate
  - Barrier :closed polyester film
  - glass wool blanket :25 (or 50) mm, 16 kg/m^3
  - outer jacket :aluminum, polyester laminate

- R-value glass wool :0.69 (25 mm) or 1.4 (50 mm) m^{2}K/W (ASTM C177-76)

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