## **DEC INTERNATIONAL TECHNICAL SPECIFICATIONS**



## SONODEC NON-WOVEN ACOUSTICALLY AND THERMAL INSULATED DUCTING

**DUTCH ENVIRONMENT CORPORAT** 

The SONODEC NON-WOVEN consists of a Polypropylene fabric cloth inner duct, thermically and acoustically insulated with a glasswool layer and provided with an aluminium laminated outer jacket. The inner duct is hydrophobic.

### **APPLICATION**

- Air-conditioning systems
- Air supply systems .
- Preventing condensation in air ventilation systems
- Decreasing of machine noises

## **SPECIFICATIONS**

Article code: SBI{Ø} -30 °C to 140 °C Temperature range: up to +2500 Pa Operating pressure: max. 25 m/s Operating air velocity: Min. bending radius: 0.54 x Ø + 25mm Standard diameter range: 82 – 315 mm Standard length: 10 mtr

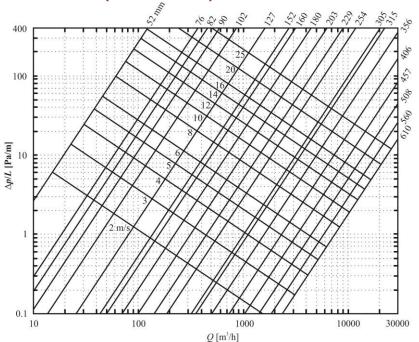
## CONSTRUCTION

Inner duct:	Non-woven Polypropylene fabric cloth					
Glass wool blanket: Outer jacket: R-value glass wool:	25mm, 16kg/m <sup>3</sup> alu/poly laminate 0.65 m <sup>2</sup> K/W (ASTM C177-76)					
Appearance:	aluminium					
CLASSIFICATION						

B-s1,d0

EU (EN 13501-1):

## **PRESSURE LOSS (STRAIGHT DUCT)**



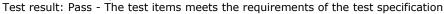
The **SONODEC NON-WOVEN** fulfills all the requirements and are classified as specified within EN 13180: Ventilation for buildings - Ductwork - Dimensions and mechanical requirements for flexible ducts.

The **SONODEC NON-WOVEN** is also available, on request, with a 50 mm glass wool layer, the article number is: SBI50 $\{\emptyset\}$ R-value glass wool: 1.3 (50 mm) m<sup>2</sup> K/W (ASTM C177-76).

## **Reach/RoHs Compliant**

Directive 2011/65/EU RoHS Phthalates according to 1907/2006/EC REACH





# RESTRICTIONS:

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### 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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## **DEC INTERNATIONAL TECHNICAL SPECIFICATIONS**

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## SONODEC NON-WOVEN ACOUSTICALLY AND THERMAL INSULATED DUCTING

SOUND ATTENUATION According: ISO 7235

Non-woven ins. 25mm (Test report nr. A1672-1 Peutz bv - The Netherlands)										
Dn	D <sub>n</sub> L Sound Attenuation, dB - Mid-frequency, Hz									
(mm)	(m)	63	125	250	500	1000	2000	4000	8000	
080	1.0	13.6	22.4	40.2	38.7	36.5	41.3	51.6	45.8	
100	1.0	15.9	22.9	31.1	38.6	36.4	40.6	50.1	35.9	
125	1.0	11.7	18.9	32.4	29.9	28.8	34.5	40.9	24.5	
150	1.0	12.2	10.9	29.7	30.1	29.0	38.3	34.6	20.4	
160	1.0	19.3	25.4	30.5	27.1	23.8	32.2	27.8	17.3	
180	1.0	17.3	13.6	27.6	26.5	26.0	35.1	22.7	13.2	
200	1.0	10.7	12.1	28.7	22.8	22.8	30.6	19.4	11.9	
250	1.0	12.9	18.7	24.3	19.5	19.9	27.7	12.9	10.2	
315	1.0	16.6	23.2	18	15.2	16.5	19.6	10.1	8.5	
Non-w	Non-woven ins. 50mm									
100	1.0	4.3	8.5	15.5	28.2	50.8	51	57.8	38.5	
125	1.0	17.7	26.3	35.4	29.2	33.3	45.4	40.5	26.5	
160	1.0	16.5	24.1	30.6	27.5	29.6	41.7	28.7	18.1	
180	1.0	17.3	28.5	28.9	25.1	30.7	38.3	22.7	18.3	
200	1.0	6.5	6.3	21.1	27.1	30.5	35.8	19.4	12.3	
250	1.0	9.0	10.0	22.0	24.0	28.0	28.0	13.0	9.0	
315	1.0	12.4	14.0	23.7	21.5	25.7	16.0	6.9	5.9	
Non-w	Non-woven ins. 25mm 3Mtr									
180	3.0	15.3	29.0	36.8	32.6	32.7	40.8	43.4	35.2	
200	3.0	17.3	30.7	36.8	32.7	34.5	40.3	40.8	22.8	
250	3.0	22.4	30.7	33.5	31.0	32.0	38.9	26	16.2	
315	3.0	31.7	32.5	29.1	25.2	28.2	37.3	16.6	14.6	



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## DEC INTERNATIONAL **TECHNICAL SPECIFICATIONS**



## SONODEC NON-WOVEN ACOUSTICALLY AND THERMAL INSULATED DUCTING

WALL REDUCTION According: ISO 7235

Non-w	Non-woven ins. 25mm (Test report nr. A1672-1 Peutz by - The Netherlands)									
Dn	D <sub>n</sub> L Wall reduction, dB - Mid-frequency, Hz									
(mm)	(m)	63	125	250	500	1000	2000	4000	8000	1
080	1.0	29.7	24.6	20.4	14.1	12.1	14.7	16.8	21.6	
100	1.0	28.9	24.0	19.4	14.8	13.7	15.2	18.6	22.9	
125	1.0	24.6	21.2	16.4	12	11.9	13.6	15.9	20.1	
150	1.0	25.4	21.6	17.1	13.3	11.3	13.2	15.0	17.3	
160	1.0	23.5	19.0	13.8	10.2	9.5	10.4	13.1	16.2	
180	1.0	23.9	19.6	13.5	10.0	9.2	10.1	13.8	19.2	
200	1.0	22.4	19.1	14.0	9.8	9.0	9.1	11.8	15.1	
250	1.0	22.6	16.2	11.5	10.1	9.1	9.9	12.4	15.7	
315	1.0	19.6	13.4	9.3	8.1	7.8	8.7	11.6	14.7	
Non-w	oven in	s. <b>50</b> m	m							
100	1.0	34.1	34.0	28.4	21.1	19.1	19.9	23.4	26.7	
125	1.0	25.3	21.8	17.9	15.0	15.7	19.1	21.3	24.7	
160	1.0	24.7	19.6	14.2	11.1	13.0	15.4	19.3	20.9	
180	1.0	20.8	18.5	13.7	11.4	11.9	13.9	17.5	21.6	
200	1.0	26.1	21.5	15.2	11.7	11.8	13.5	17.5	19.8	
250	1.0									
315	1.0	19.9	15.9	12.6	11.6	11.3	13.6	17.7	22.6	
Non-woven ins. 25mm 3Mtr										
180	3.0	22.1	18.8	14.3	12.6	11.4	11.8	12.8	16.6	
200	3.0	21.4	18.7	13.6	10.4	9.7	9.7	12.1	15.0	
250	3.0	21.7	16.1	11.3	10.6	10.1	10.2	13.2	16.3	
315	3.0	19.3	12.4	9.4	8.3	8.6	9.6	12.1	14.6	

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