### DEC INTERNATIONAL TECHNICAL SPECIFICATIONS







# GREENDEC® Sanitized® Type Connectdec

ACOUSTICALLY AND THERMAL INSULATED DUCTING

#### **Features Inner duct:**

This high Tech-inner core material is protected with the antimicrobial **Sanitized**<sup>®</sup> hygiene function to reduce microbial growth and unpleasant odors on the surface.

#### ANTI-MICROBE PROTECTION

Image Non-Sanitized® cloth:

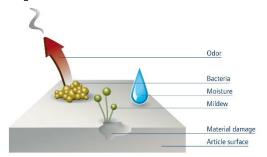
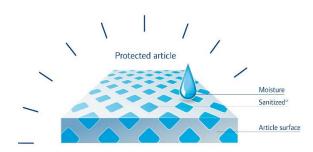


Image Sanitized® protection of Innerduct of Polypropylene cloth:



**GREENDEC® Sanitized®** consists of a **Polypropylene fabric cloth inner duct**, protected with the antimicrobial Sanitized® hygienic function to reduce bacteria growth, it reduces odor-causing bacteria, protecting the material permanently for peace of mind and more freshness.

#### **Properties GREENDEC® self-stretching Inner duct:**

- Sanitized® Polypropylene fabric cloth inner duct code: ZNW 70 FRABG-01
- The integrated antimicrobial Sanitized® hygiene function helps to keep everyday items, surfaces, and appliances clean and offers 24/7 protection against bacteria and odors. BPR PT9 compliant for more information see: <a href="www.sanitized.com">www.sanitized.com</a>
- Properties are not subject to aging and or temperature influences
- Vapor pressure Hydrophobic
- Odorless
- Tested and approved according to ISO 184 table 2 in method A of growth intensity 0 and in method C of growth intensity 0. (Test certificates: W-354476e-22-Ho und W-354477e-22-Ho dated 06.01.22)

This means that the inner material with code ZNW 70 FRABG-01: forms no nutrient basis for the development of microorganisms. The tested material therefore meets the requirements with respect to microbial metabolization based on VDI 6022, sheet 1 (01/2018) "Hygiene requirements and room technology systems and devices". Further material requirements according to VDI 6022, Sheet 1 must be checked separately.

#### **Optional DEC®TECH-Barrier:**

- Acoustical performances with DEC®TECH-Barrier
- M0 classified
- Avoid leakage
- Avoid pressure drop
- Avoid cold bridge
- Avoid odor
- Avoid emission of insulation particles into the airstream

#### **APPLICATION**

- Cleanrooms
- Hospitals
- Heat recovery units
- Air-conditioning systems
- Air supply systems
- · Preventing condensation in air ventilation systems
- ALL HVAC systems



#### LIABILITY:

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#### TRADEMARKS:

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#### RESTRICTIONS:

The SONODEC ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.

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







### GREENDEC® Sanitized® Type Connectdec

ACOUSTICALLY AND THERMAL INSULATED DUCTING

#### **SPECIFICATIONS**

Article code:  $CO(1,2,3)SBGAB\{\emptyset\}/L$ 

Temperature range:

-30 °C to 90 °C Inside: -30 °C to 140 °C Outside: Operating pressure: up to +2000 Pa Operating air velocity: max. 30 m/s Min. bending radius:  $0.54 \times Ø + 25mm$ Diameter range: 80 - 315 mm 1 and 3 meters Standard length: Appearance: Aluminum

#### **CONSTRUCTION**

Inner duct High-Tech

non-woven polypropylene

fabric cloth with

Sanitized® treatment

**DEC®TECH** 

Vapor barrier: Optional Glass wool blanket: 25mm,16kg/m<sup>3</sup> R-value glass wool: 0.65m2 K/W (ASTM C177-76)

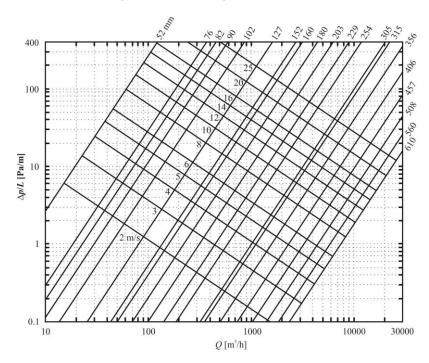
Outer jacket: Aluminum/polyester

outerjacket

Classification: According

ISO 184 Method A: 0 ISO 184 Method C: O EU (EN 13501-1: B-s1d0

#### PRESSURE LOSS (STRAIGHT DUCT)



#### **Regulation or protocol**

French VOC Regulation



Version of regulation or protocol

Regulation of March and May 2011 (DEVL1101903D and DEVL1104875A)

#### A Sanitized sound attenuator with thermically and acoustically properties.

Optional: the insulation wool and the inner core to be separated by a DEC®TECH-Barrier surrounding the inner core. The DEC®TECH-Barrier has inorganic aluminum layers at both sides to prevent grow of microbes as well to prevent that the airstream can affect the Thermal conductivity of the insulation wool.

Note: The DEC®TECH-Barrier gives different acoustical properties:



The Greendec®- type Connectdec® fulfills all the requirements and are classified as specified within EN 13180: Ventilation for buildings - Ductwork - Dimensions and mechanical requirements for flexible ducts.

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### **DEC INTERNATIONAL** TECHNICAL SPECIFICATIONS







# GREENDEC® Sanitized® Type Connectdec ACOUSTICALLY AND THERMAL INSULATED DUCTING

Acoustical performances without DEC®TECH-Barrier and with standard aluminum outer jacket:

#### SOUND **ATTENUATION**

According: ISO 7235  $\pm 2 dB$ 

GREENDEC Sanitized (glass wool blanket 25 mm) Test report No.LAV 7624/23										
ø	L (mm)	SOUND ATTENUATION Di (dB)								
(mm)		63	125	250	500	1000	2000	4000	8000	
()	()	Hz	Hz	Hz	Hz	Hz	Hz	Hz	Hz	
82	500	13.2	10.3	17.7	25.2	32.1	35.0	38.4	19.4	
102	500	2.9	11.0	18.6	25.6	24.3	30.1	38.1	13.5	
127	500	1.6	5.3	11.3	22.6	21.4	26.2	31.3	11.5	
160	500	0.8	4.3	10.9	17.1	17.9	19.7	21.9	14.2	
203	500	5.3	11.0	15.6	13.8	12.9	15.3	13.3	5.8	
254	500	4.5	7.8	11.4	11.6	11.7	11.7	5.2	3.1	
315	500	4.8	11.5	11.2	9.0	8.1	5.7	2.5	1.7	
82	750	4.9	12.6	22.8	39.7	39.2	43.9	39.6	21.1	
102	750	8.6	18.6	32.3	34.0	30.3	37.3	41.7	20.6	
127	750	9.4	16.7	28.5	29.4	26.7	31.7	39.9	17.5	
160	750	1.5	8.8	19.3	22.4	20.6	25.7	32.2	14.4	
203	750	4.6	15.1	19.6	18.2	18.1	24.1	19.2	8.0	
254	750	2.2	10.7	14.5	16.3	16.2	19.3	10.3	4.6	
315	750	3.9	13.8	14.6	13.7	13.1	10.4	4.2	1.2	
82	1000	5.9	13.1	27.2	40.2	35.4	42.3	38.2	21.2	
102	1000	3.7	17.4	28.3	39.7	32.3	40.0	41.3	22.8	
127	1000	6.3	10.7	23.0	36.4	34.9	40.0	40.9	20.8	
160	1000	1.4	12.5	28.5	27.3	25.1	29.7	37.1	18.9	
203	1000	5.6	15.3	24.9	25.7	24.4	32.3	27.7	15.2	
254	1000	6.1	15.8	21.1	21.4	20.1	25.2	13.3	7.3	
315	1000	8.3	20.8	18.8	16.1	16.6	16.2	7.9	4.7	
82	1500	8.9	20.8	36.6	41.6	37.3	46.4	39.6	21.3	
102	1500	5.9	19.9	30.1	42.9	37.3	47.3	42.4	24.0	
127	1500	12.5	14.1	27.3	42.5	37.4	42.6	42.4	25.3	
160	1500	1.2	12.7	28.0	39.3	33.3	36.7	40.1	21.9	
203	1500	8.5	19.1	36.1	30.0	28.5	32.5	33.2	13.9	
254	1500	8.3	16.5	29.7	25.1	26.2	30.2	18.7	9.4	
315	1500	10.4	28.2	24.1	20.2	22.3	20.4	9.8	10.2	

#### **Properties insulation**







#### Reach/RoHs Compliant



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### **DEC INTERNATIONAL** TECHNICAL SPECIFICATIONS







# GREENDEC® Sanitized® Type Connectdec ACOUSTICALLY AND THERMAL INSULATED DUCTING

Acoustical performances without DEC®TECH-Barrier and with standard aluminum outer jacket:

WALL **REDUCTION** According: ISO 7235 ± 2 dB

GREENDEC Sanitized (glass wool blanket 25 mm) Test report No.LAV 7624/23 WALL REDUCTION Dt (dB)									
Ø (mm)	L (mm)	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
82	500	34.9	27.1	20.3	13.7	10.1	9.2	12.8	34.9
102	500	29.0	24.1	16.3	12.2	10.4	11.6	14.4	29.0
127	500	33.7	23.4	18.2	11.7	10.8	10.5	13.3	33.7
160	500	34.5	27.1	20.1	12.5	9.6	9.7	13.5	34.5
203	500	25.9	20.7	14.5	8.9	6.8	9.7	12.6	25.9
254	500	29.3	22.2	16.1	8.2	7.4	9.1	12.2	29.3
315	500	31.5	26.2	18.3	11.5	8.4	8.0	11.5	31.5
82	750	28.7	23.9	16.4	10.2	6.9	10.2	12.7	28.7
102	750	30.5	24.7	18.6	10.7	9.2	10.1	12.9	30.5
127	750	36.0	26.2	20.7	12.4	8.5	8.7	12.2	36.0
160	750	26.4	22.9	15.3	10.3	6.7	10.1	12.2	26.4
203	750	30.4	23.2	18.0	10.2	9.5	10.6	13.2	30.4
254	750	26.2	21.4	17.0	11.2	9.7	9.8	11.9	26.2
315	750	26.3	19.8	10.9	5.2	5.6	8.3	10.7	26.3
82	1000	29.0	19.3	11.3	8.6	8.9	10.2	14.0	29.0
102	1000	22.4	16.0	9.4	7.0	7.1	7.9	12.8	22.4
127	1000	24.5	21.5	16.3	10.8	9.7	9.9	11.8	24.5
160	1000	26.3	19.8	11.5	6.3	6.6	8.7	11.7	26.3
203	1000	28.4	20.2	11.1	8.5	9.1	10.1	13.3	28.4
254	1000	23.5	15.9	9.9	7.5	7.6	8.3	12.5	23.5
315	1000	23.2	22.0	17.5	11.5	10.5	10.5	11.9	23.2
82	1500	26.5	20.3	12.5	7.6	7.7	10.4	12.0	26.5
102	1500	26.4	19.9	10.7	8.2	8.2	9.4	11.8	26.4
127	1500	20.3	15.2	8.7	6.7	7.3	7.9	12.2	20.3
160	1500	20.2	22.6	18.9	12.3	11.3	11.1	12.6	20.2
203	1500	24.1	21.2	12.8	7.3	7.6	10.6	12.6	24.1
254	1500	28.1	21.2	13.4	9.7	9.8	11.0	12.8	28.1
315	1500	19.8	16.5	10.0	7.9	8.0	8.3	11.9	19.8

#### **Properties insulation**







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