# **DEC INTERNATIONAL** TECHNICAL SPECIFICATIONS





Smartdec® a unique Green flexible duct, which contains no PVC!

An Emission free flexible duct for residential, new build & renovation applications consist out of a durable multiple layer Polypropylene fabric wall construction, with an interlocked spring-helix for a smoother inside. Inside duct wall is laminated with an environmental friendly DECPROTECT™ Anti-bacterial & Anti-fungus Inner liner to create an airtight inner surface with excellent properties regarding:

- **DECPROTECT™** microbial resistance according to ISO 846 Class A and C (Class 0);
- HVAC uses EN13180
- Leakage D/ATC 2 up to +1000Pa
- The polypropylene duct wall offers good resistance to non-oxidizing acids/bases/ fatty agents/most organic solvents
- Highly impermeable to water;

#### **APPLICATIONS:**

- Residential ventilation:
- Standard ductwork EN 13180;
- Air treatment installations;
- Distribution, plenum boxes;
- Retrofit ventilation channels;

### Unique selling points:

- No PVC
- No Emissions
- Smartdec® Inner liner anti-microbe
- Energy saving by less pressure loss
- Environmental friendly
- Durable
- Easy to install
- No emissions
- 100% recyclable

## Specification

Article code: SMAD[Ø] Color: Green Diameter range: 82-315mm -20°C to 60°C Temperature range: Operating pressure: up to 1000Pa

D-s1,d0 based on Smoothdec® test result Fire resistance EN-13501:

Operating air velocity: max. 4m/s R=0.54 X Ø Min bending radius:

ATC 2 Class D till 1000Pa Airtightness class: ISO 22196 antimicrobial: 99,9% effectiveness ISO 16869 fungistatic: 99,9% effectiveness

ISO 184 Method A (11/2020) class 0

Hygienic packaging: Each length is packed individual See mounting instruction Mounting:

Standard length in meter: 10Mtr

Reach/RoHs Compliant Directive 2011/65/EU RoHS

Phthalates according to 1907/2006/EC REACH

**TÜV**Rheinland®

Test result: Pass - The test items meets the requirements of the test specification



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#### PLEASE NOTICE:

The consultant is responsible for the actual installation and Ine 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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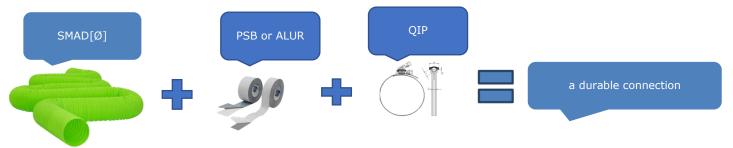
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The Smartdec® fulfills all the requirements and are classified as specified within EN 13180: Ventilation for buildings - Ductwork - Dimensions and mechanical requirements for flexible ducts.

#### **Mountings instructions:**



#### In summary all you need to build the inlet for a flexible ductwork system:

- Smartdec® diameter according installation space, air volume and aimed pressure loss;
- Smartdec® length; when a longer length is used than 2 meter;
- Fixated the fully stretched duct each 2 meters by brackets [SBRØ],
- To fixate the connect ends to the HVAC components [PSB] + [QIPØ]
- Please take care the **Smartdec**® duct is always fully stretched.

## In addition to your needs;

- Air valves for example [RONDOØ] exhaust/supply;
- Other DEC ventilation components; see DEC's Delivery program www.decinternational.com



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The ducts are not suitable for Ine 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.

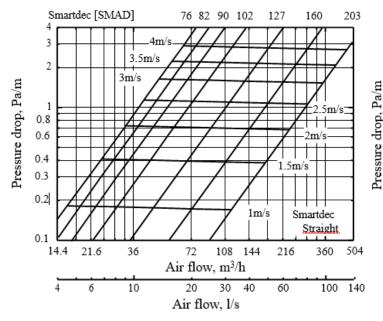
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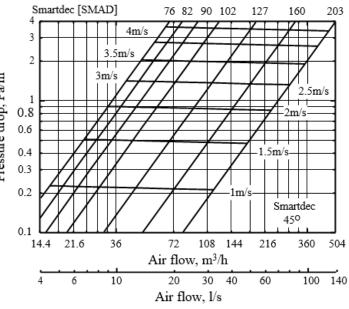




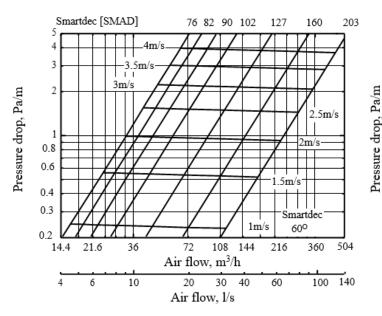
### **Pressure drop Straight length**



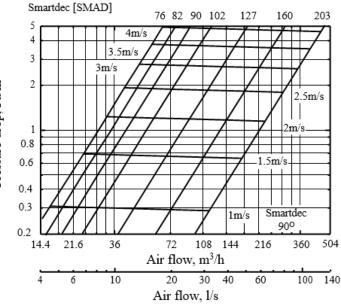
#### Pressure drop at 45°



# Pressure drop at 60°



## Pressure drop at 90°



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