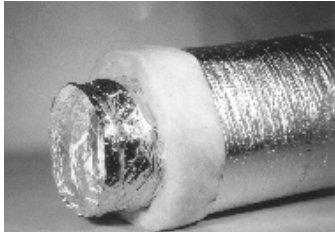


THERMICAL INSULATED PRODUCTS

DEC International® produces different thermically insulated products for several purposes. The thermic insulation is suitable for preventing condensation and minimizing heat loss and loss of cold.

The **thermically insulated** product series consist of:



The **ISODEC®** series:

The **ISODEC®** series consists of an aluminium laminate inner duct, thermically insulated with a glass wool layer and provided with an either glass fibre strengthened outer jacket, (**ISODEC® 25** and **ISODEC® 250**)



The **ISOSLEEVE:**

The **ISOSLEEVE** consists of an aluminium laminate outer jacket, strengthened with glass fibre and provided with a glass wool insulation layer.

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

Range of application in practice

- Insulation in ventilation and air supply systems
- Air conditioning systems
- Thermic insulation in order to prevent heat loss or loss of cold
- Preventing of condensation in ventilation systems

Restrictions in the range of application

The **ISODEC®** ducts are not suitable for transporting air with a high concentration of acid and base. Neither are the **ISODEC®** 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.

According to NEN 3883 tested by TNO:

- Flame spread: class1
- Flame transfer: class1
- Smoke figure: 2

To select the appropriate thermically insulated product, consult the table on the next page.

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	ISODEC® 25	ISODEC® 250
Mechanical properties		
Temperature range (°C)		
Inner duct	-30 - +140	-30 - +250 ¹⁾
Outer duct	-30 - +140	-30 - +140
Maximum operating pressure (Pa)	+2500	+3000
Maximum air velocity (m/s)	25	30
Diameter range (mm)	82 - 508	65 - 635
Fire classes according to		
Europe (EN 13502-1)	B-s1, d0	B-s1, d0
The Netherlands (NEN 6065/6066)	1	1
Germany (DIN 4102)	B2	B1
France (CSTB)	M1	M0/M1
Switzerland (BKZ)	x	5.3
United Kingdom (BS 476)	6, 7 and 20	6, 7 and 20
Austria (B3800)	B1	B1
Italy (CSI)	1-0	1-0
Technical data		
Article code	DI{Ø}	DIX{Ø}
Material structure/ Construction	see product specific properties	
Wire spacing inner duct		
until Ø 102 mm	25 mm	25 mm
Ø 102 mm and larger	36 mm	18 ²⁾ mm
Minimum bending radius	0.54 x Ø + †	0.58 x Ø + †
Standard length (meters)	10	10
Standard color	aluminium	aluminium

X = not been tested

† = thickness of glass wool

¹⁾ = heat resistance inner duct: up to 250 °C

²⁾ = two different wires have been used alternately

Product specific properties ISODEC®

The ISODEC® is also available, on request, with a 50 mm glass wool layer, the article number is: DI(X)50{Ø}

- Material structure: - aluminium laminate / glass wool / aluminium laminate.
- Construction:
 - inner duct : aluminum, polyester laminate.
 - glass wool blanket : 25 (or 50) mm, 16 kg/m³.
 - outer jacket : aluminum, polyester laminate.
- R-value glass wool: 0.69 (25 mm) or 1.4 (50 mm) m²K/W (ASTM C177-76).

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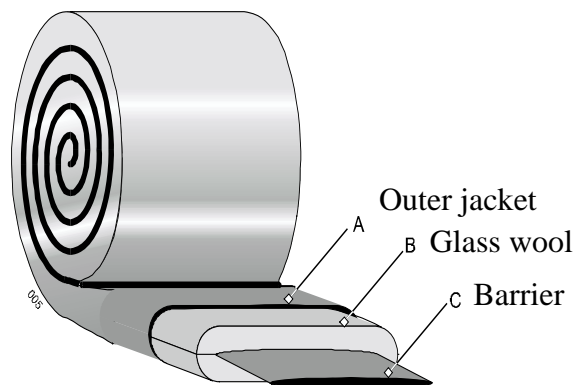
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ISOSLEEVE

	ISOSLEEVE 25	ISOSLEEVE 50
Mechanical properties		
Temperature range (°C)	-30 - +140	-30 - +140
Maximum operating pressure (Pa)	+2000	+2000
Maximum air velocity (m/s)	irrelevant	irrelevant
Diameter range (mm)	52 - 635 ¹⁾	52 - 635 ¹⁾
Fire classes according to		
Europe (EN 13501-1)	B-s1, d0	B-s1, d0
The Netherlands (NEN 6065/6066)	3-1	3-1
France (CSTB)	M1	M1
Technical data		
Article code	DHB{Ø}	DHB50{Ø}
Material structure	see product specific properties	
Construction	see product specific properties	
Standard length (meters)	10	10
Standard color	aluminium	Aluminium

X = Not been tested
¹⁾ = Diameter acc. to inner duct

1.6



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Range of application in practice

- Insulation in air supply systems
- Air conditioning systems
- Insulation of rainwater discharge
- Reducing of heat loss
- Preventing/discharging of condensation

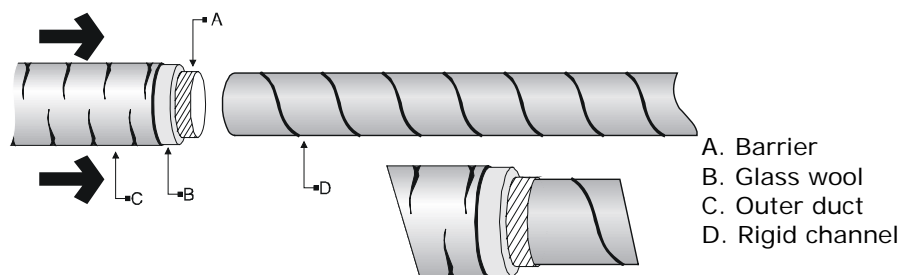
Restrictions in the range of application

The **ISOSLEEVE 25** (or **50**) is not suitable in rooms with a high concentration of acid and base.

Barrier

The **ISOSLEEVE 25** (and **50**) has standard a barrier. The barrier simplifies the mounting, and the installer will not have unnecessary contact with the glass wool.

The article numbers for the **ISOSLEEVE 25** and **50** with barrier are resp. **DHB{Ø}** and **DHB50{Ø}**.



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.

Product specific properties.

ISOSLEEVE 25/50

- Material structure:
 - polyester laminate / glass wool / aluminum laminate
- Construction:
 - inner duct : closed polyester film
 - Glass wool blanket: : 25 (or 50) mm, 16 kg/m³
 - Outer jacket: : aluminum, polyester laminate
- R value glass wool : 0.69 (25 mm) or 1.4 (50 mm) m²K/W (ASTM C177-76)

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