



## Flexible ducts

## **SONOFLEX 25**

- Aluminium laminated Acoustically insulated

# Acoustic laminated aluminium flexible ducts type SONOFLEX 25

The **SONOFLEX 25** is a thermally and acoustically insulated duct, consisting of a micro-perforated inner duct of the **ALUFLEX** type and a laminated 3-layer outer jacket. The yellow fibreglass anti-allergic insulation has been developed especially for flexible ducting. A polyester barrier is applied between the fibreglass insulation and the inner duct to avoid the diffusion of insulation particles in the air stream.

#### **Application**

■ The **SONOFLEX 25** flexible ducts are used in ventilation, air conditioning, and air handling systems where high mechanical strength, temperature, fire-resistance, and thermal and sound attenuating qualities are required

### Composition

- Micro-perforated inner duct of the ALUFLEX type, consisting of 1 layer of 7 μ aluminium , and 2 layers of 12  $\mu$  polyester each (one aliminized), total thickness without glue: 31  $\mu$
- Metalized polyester outer jacket 3-layer laminate, consisting of 2 layers of polyester of 12 μ each and 1 aluminium of 7μ. Total thickness without glue: 31 μ
- Fibreglass insulation:

  - Density: 16 kg/m³ Thickness: 25 mm
  - Thermal resistance: 0,65 K.m<sup>2</sup>/W
- Thermal conductivity: 0,039 W/m-K
   Colour: pink (Ø82 406 mm) / yellow (Ø457 508 mm)
   Polyester barrier of 12µ between insulation and inner duct
- Wire spacing: a steel spiral spring of different thicknesses and a pitch of 25mm (Ø82-90mm), 36mm (Ø102-508mm)
- Colour: Aluminium

### **Specifications**

- Temperature range: From 30°C till + 140°C
- Air velocity (max): 20 m/s
- Operating pressure: -188 up to 2500 Pa
   Center bend radius: 1 x Diameter minimum
- Diameter range: 82 mm 508 mm
   Fire resistance: class B s1, d0 according to EN13501-1
- As the product does not contain PVC, no toxic vapours are released should fire
- Produced according EN 13180: Dia Class B, Thightness Class C, Sag<4°, Crushing strength 13-35kg compressed; 2.5kg uncompressed.



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### **Packaging**

Each standard length of 10 m is compressed in an individual, reinforced cardboard box

#### **Chemical resistance**

- Good resistance to many organic solvents
- Moderate resistance to acid and base

#### **Static properties**

■ The **SONOFLEX 25** is suitable for applications where static discharges have to be avoided

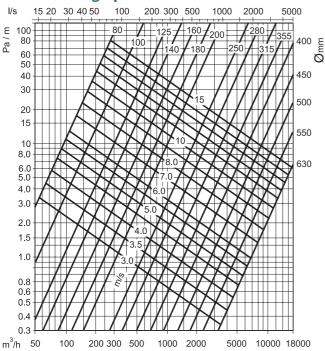
#### **Restrictions**

- The **SONOFLEX 25** ducts are not suitable for transporting air with a high concentration of acid and base
- The **SONOFLEX 25** can not be used for discharging combustion gases from open fire places and oil-fired boilers

#### **Accessories**

- Clamps type MCA
- Aluminium tape, type Alutape 40S

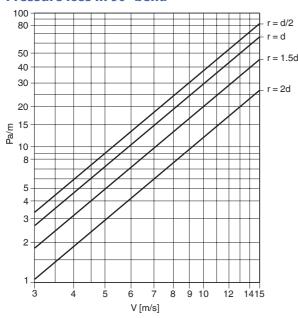
### **Pressure loss graph**





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## Pressure loss in 90° bend



Sound attenuation for 1m duct - Tolerance +/- 2 dB

Sound attenuation for 1, 2 and 3m duct									
SONOFLE	X 25	Test report Peutz bv - The Netherlands n° A3308-1-RA-001 Attenuation, dB -Mid Frequency [Hz]							
Ø [mm]	L [m]	63	125	250	500	1000	2000	4000	8000
102	1	7.9	11.1	17	26.9	29.3	36.9	24.6	20.7
	2	11.1	19	31.6	34.4	38.5	46.4	41.2	30.1
	3	14.9	25	37.5	34.8	42.4	51.2	52.1	47.9
127	1	6.1	6.6	17.3	27	28.4	34.7	21.6	17.9
	2	11.1	17.1	33.1	31.9	36.7	43.4	34.8	24.6
	3	11.4	17.7	39.2	33.7	39.2	46.9	46.3	37.3
152	1	3.3	4.2	12	17.2	19	23.6	13.1	8.3
	2	3.3	7.1	18.3	29.6	32.7	38.9	24.3	17.6
	3	5.8	12.5	29.3	33.5	36.1	43.1	31.8	21.5
165	1	5.5	3.8	10.3	20.1	20.5	24.7	15.6	11.8
	2	10.5	10.7	21.2	30.4	31.2	38.4	23.8	15.9
	3	12.3	13.4	31	35	38.2	44.1	34.1	22.1
185	1	9.7	1.7	11.6	18.6	19	24.1	13.7	10.6
	2	11.9	10.2	25.8	27.5	30.2	37.8	26	19.4
	3	14.4	15.5	34.8	30.2	34.8	42.4	37.8	28.8
203	1	2.7	5.8	13.6	19.8	19.4	20.3	13.2	11.6
	2	9.1	10.3	27.5	28.5	30.6	35.6	26.6	22.8
	3	9.8	10.1	25.4	34.6	40.4	44	45.1	43.2
229	1	3.7	6.2	16.2	14.6	16.6	16.1	9.5	7.1
	2	9.3	17.6	30.7	23.3	26.7	28.5	18	13.8
	3	7.6	14.1	33	28.5	32.9	39.1	29.3	25.4
254	1	7.7	2.6	12.9	16.4	16.6	15.6	8.5	7.8
	2	8.2	7.6	25.2	24.6	27.6	29.1	19.3	15.6
	3	10.4	12.8	33.2	29.2	31	34.6	24	18.8
305	1	3.9	4.6	12.9	14.8	14.4	12.3	6.7	5.9
	2	9.7	12.8	27.6	22.1	24.3	21.8	11.7	10.1
	3	11.2	17.4	31	25.6	27.1	27.3	15.9	15
315	1	5.1	5.9	14.3	13.7	12.9	11.3	6.3	5
	2	9.2	12.1	26.9	22	23.2	20.8	11.8	8.5
	3	12.1	17.1	30.4	25	26.7	28.3	17.7	15.5
356	1	4.2	3.7	10.4	11.4	11.8	8.4	4.6	4.3
	2	5.3	5.9	21.3	18.8	21.7	18.4	12.2	12.1
	3	5.8	8.6	25.3	25.3	29.8	32.7	24.4	18.6
406	1	7.1	6.8	12.7	11	10.9	6.9	4	3.2
	2	9.7	15.8	22.3	18.3	22.5	13.1	8.1	7
	3	11.7	18.2	26	22.5	26.3	27.3	18	15.6

## **Order example**

Sonoflex 25, 254
Explanation:
Sonoflex 25 = Type of flexible duct
254 = Diameter of flexible duct