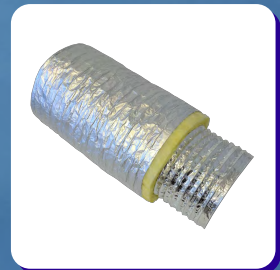


X FLEX

ACOUSTIC, INSULATED X-FLEX

- ⚙ ENGINEERED TO REDUCE NOISE
- ⚙ MANUFACTURED WITH FIRE RETARDANT ADHESIVES.
- ⚙ NON-FLAMMABLE GLASS WOOL INSULATION.
- ⚙ RIGOROUS QUALITY, MANUFACTURING AND TESTING PROCEDURES.
- ⚙ GENEROUS FOIL OVERLAP INCREASES TEAR AND PUNCTURE RESISTANCE.
- ⚙ ACOUSTIC X-FLEX: SAFE, DURABLE AND ECONOMICAL.



FEATURES

Rickard's Acoustic X-Flex is constructed to be durable, safe and economical.

The materials, adhesives and rigorous quality, manufacturing and testing procedures ensure Acoustic X-Flex is always strong and safe. Rickard's Acoustic X-Flex is flame retardant and will cease burning after being exposed to a flame. Rickard's focus on efficiency ensures Acoustic X-Flex is economically priced without sacrificing quality.

We've added significant sound absorption and noise mitigating properties which makes this product ideally suited to air conditioned environments where low frequency noise levels need to be kept to a minimum.



MATERIAL

INNER CORE

Foil

Two layers of perforated aluminium foil bonded to a PET layer for strength. Total thickness 30 microns. The foil is engineered to create a noise reducing layer.

Wire

1mm spring steel wire

Adhesive

Water-based, Acrylic adhesive. Fire retardant containing no flammable solvents.

INSULATION

Glass wool, 25mm thick. Density 18kg/m³

OUTER CORE

Foil

Aluminium foil bonded to a layer of PET for strength. Total thickness 20 microns.

Adhesive

Water-based, Acrylic adhesive. Fire retardant containing no flammable solvents.

CONSTRUCTION

INNER CORE

A helically wound strip of PET reinforced aluminium foil with a generous overlap. 1mm spring wire is encapsulated by the foil and glued with a Water-based, Acrylic adhesive. Maximum constructed thickness 60 microns.

The sandwich construction of the PET, foil membrane, combined with a double layer and encapsulated spring wire creates an extremely tough flexible membrane.

INSULATION

25mm layer of glass wool sandwiched between an inner layer of flex and an outer layer of foil. The combination of the air gap between the inner and outer flex, the glass wool with a density of 18kg/m³ and the air trapped inside the wool creates an effective insulation layer.

OUTER CORE

A helically wound strip of PET reinforced aluminium foil with a generous foil overlap and glued with a Water-based, Acrylic adhesive. Maximum constructed thickness 40 microns.

SIZES

LENGTHS

Standard length: 10m

Special lengths are available for larger orders. Please contact your local salesman or email sales@rickardair.com.

Sizes (mm)
150
200
250
300
350

APPLICATION

For use with VAV or CAV supply or extract systems. Rickard recommends maximum lengths between the duct and diffuser of 1.5m. Longer lengths waste energy and result in large static pressure regains when a VAV diffuser damper closes. These high pressures at minimum can result in added noise and over cooling.

OPERATING TESTS

Maximum Internal Pressure: 3000Pa

Maximum Temperature (Extended with load): 100°C

OPTIONS

Acoustic X-Flex (Insulated): Sizes 150-350mm.

Jubilee Clamps: Sizes 150-350mm.

FIRE RATING

Tested: SANS 10177-5 & SANS 10177-10

Rated: B/B1/2 (Combustible/No Flame Spread/Suitable for use in type 2,3 & 4 buildings)

Type 2,3 & 4 buildings	
Exhibition hall	Theatrical & indoor sport
Domestic residence	Health care
Museum	Places of instruction
Dwelling house	Small shop
Low risk industrial	Large shop
Moderate risk industrial	Worship
High risk industrial	Outdoor sport
Hospitality	Wholesalers' store
Low risk storage	Low risk commercial
Moderate risk storage	Moderate risk commercial
High risk storage	High risk commercial
Parking garage	Offices

PERFORMANCE DATA

Neck Size	Performance Characteristics	Velocity (m/s)								
		2	3	4	5	6	10	12	15	20
150	Volume Flow (l/s)	39	59	78	98	118	196	235	294	392
	Pressure Drop (Pa)	0.4	0.9	1.7	2.6	3.7	10.3	14.9	23.3	41.3
200	Volume Flow (l/s)	71	107	143	178	214	356	428	535	713
	Pressure Drop (Pa)	0.3	0.8	1.4	2.2	3.1	8.6	12.4	19.4	34.6
250	Volume Flow (l/s)	106	159	212	266	319	531	637	797	1062
	Pressure Drop (Pa)	0.3	0.6	1.0	1.6	2.3	6.5	9.4	14.7	26.1
300	Volume Flow (l/s)	156	234	312	390	468	780	936	1169	1559
	Pressure Drop (Pa)	0.2	0.5	1.0	1.5	2.2	6.0	8.7	13.6	24.2
350	Volume Flow (l/s)	206	309	412	515	618	1030	1236	1544	2059
	Pressure Drop (Pa)	0.3	0.6	1.1	1.7	2.4	6.7	9.7	15.2	26.9
400	Volume Flow (l/s)	264	396	528	660	792	1321	1585	1981	2642
	Pressure Drop (Pa)	0.2	0.5	0.8	1.3	1.8	5.1	7.3	11.5	20.4

ASHRAE Standard 120-1999, Methods of Testing to Determine Flow Resistance of HVAC Air Ducts and Fittings (ASHRAE 1999) was used as a guideline for testing. Extended samples of 25 diameter duct lengths were tested. The pressure drop was determined by measuring across 4 equally spaced static measurement points that were installed in a hard duct 10 diameter lengths from the inlet transition and 4 diameter lengths from the exit.