

ALPHA TUBE

Internally Lined Spiral Tube

Galvanised spiral duct with internal acoustic foam lining

Noise reduction Thermal lining Commercial HVAC Fresh air & extract



Product image from Alpha Tube webpage

Product summary: Spirally wound galvanised steel duct, internally lined with 6mm acoustic foam to help absorb duct-borne noise and provide thermal lining within commercial and industrial ventilation systems.

PRODUCT OVERVIEW

Internally Lined Spiral Tube is designed for ventilation systems where noise reduction, thermal performance and reliable airflow are required. The internal lining helps absorb sound within the duct run, making the product suitable for offices, schools, hospitals, leisure buildings, plant rooms and general commercial ventilation projects.

CONSTRUCTION AND MATERIALS

Outer duct body	Galvanised steel, spirally wound duct tube.
Internal lining	6mm acoustic foam lining. Product page describes 6mm Pyrosorb foam; supplied material data covers CC400 VAF-S Acoustic Foam.
Bonding adhesive used	High Strength Spray Adhesive, light beige, high strength, foaming formula for low soak-in.
Connection format	Female tube sizes; male fittings designed to fit inside.
Manufacturing	Manufactured and cut to stated lengths. Other sizes available by phone or email enquiry.

AVAILABLE SIZES

Nominal duct diameter	Listed length
125mm	1 metre
150mm	1.5 metre
200mm	1.5 metre
250mm	1.5 metre
300mm	1.5 metre
315mm	1.5 metre

ORDERING / SUPPLY NOTES

SKU	Alph41
Delivery date stated	5-7 days.
Lead time note	Uncommon and/or larger sizes may have a longer lead time.
Delivery note	Not eligible for free delivery on orders over GBP 250 due to size or shipping requirements.

APPLICATIONS

- Fresh air supply and extract ventilation systems.
- Acoustic ductwork installations where standard spiral ducting may not provide enough sound control.
- Commercial and industrial HVAC installations.
- Plant rooms, occupied building areas and projects where reduced duct noise contributes to occupant comfort.

COMPATIBLE / RELATED PRODUCTS

- Internally lined male collars for joining spiral tube lengths or other female fittings.
- Internally lined 90 degree spiral ducting bends.
- Internally lined volume control dampers.
- Standard spiral ducting tube and 90 degree spiral ducting bends for related ductwork runs.

FOAM MATERIAL PROPERTIES - CC400 VAF-S ACOUSTIC FOAM

Property	Value	Test method
Density	>90 kg/m ³	BS EN ISO 845
Colour	Dark grey	-
Thickness range	6mm - 50mm	-
Fire propagation index	<12	BS 476 pt 6
Surface spread of flame	Class 1	BS 476 pt 7
Building Regulations Paragraph A13(b) Approved Document B	Class 0	BS 476 pt 6 & 7
Operating temperature	-30 to 100 degC	-
UL94 classification	94 V-0	UL94
Surface burning behaviour	Class A	ASTM E84-95
Air erosion resistance	Pass	ASTM C1071-05 12.7
Fungus resistance test	Does not support growth	ASTM G21-96
Mildew / fungus resistance	Does not support growth	ASTM D-2020-92
Water vapour sorption	<9%	ASTM C553-92
Thermal conductivity	0.382 Btu-in/hr-ft-degF	ASTM C518-04
Corrosiveness on galvanised steel	Pass	ASTM C665-95
Hot surface performance @1000 degC for 96hr	Pass	ASTM C411-04

ACOUSTIC PROPERTIES OF THE FOAM

The acoustic foam material is intended to absorb sound energy inside the duct run. Supplier acoustic performance data is stated as random-incidence NRC values at the foam thicknesses shown below. The listed duct product uses a 6mm internal lining; installed duct acoustic performance will depend on duct size, lined length, airflow conditions, installation and project design.

Foam thickness	Test / condition	Reported acoustic result
6mm foam	Sound absorption, random incidence	NRC 0.25
25mm foam	Sound absorption, random incidence	NRC 0.45
50mm foam	Sound absorption, random incidence	NRC 0.70

ADHESIVE MATERIAL PROPERTIES

Adhesive type / use	High Strength Spray Adhesive used for bonding the internal acoustic foam lining to the spiral duct surface.
Spray control	Variable spray nozzle with three-position spray pattern.
Bond strength	High strength.
Formula	Foaming formula for low soak-in.
Environmental formulation notes	Halogen and CFC free.
Economy	Economical in use.
Colour	Light beige.
Compatibility warning	Not suitable for use with plasticated PVC or expanded polystyrene.
