

## Verplas Self-Seal Thermal Ducting Range





SYSTEM OVERVIEW

The technology behind the lifestyle



### For all your ducting needs

### Self-Seal Thermal Ducting

### Company Overview

Verplas Ltd established in 1986 is one of the UK's leading ventilation ducting manufacturers. With its increasing capabilities within extrusion and plastic injection moulding, Verplas' wide range of UK Ventilation products have continued to lead the way within the domestic ventilation market for nearly 30 years.



Verplas is part of the Indutrade worldwide group that specialises in high-tech products and solutions with over 200 companies within its portfolio.





### Service

erplas

Verplas delivers on customer service with a dedicated team of advisors trained and here to help. We understand the demands of today's construction industry requiring a fast response to all customers' needs from technical information and regulation support through to delivery advice.

### Innovation

Verplas specialise in supporting the specification marketplace by providing industry changing solutions. We at Verplas ensure you have the right tools to select the most energy efficient ducting systems. Our patent pending self-seal ducting systems provide specifiers with peace of mind of a leak free system. Our 3D REVIT BIM files with links to technical data provide easily accessible supporting information for todays ventilation designer.



### Quality

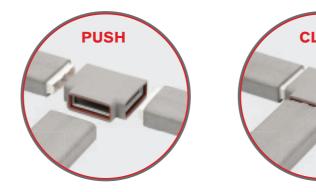
Verplas' reputation for quality and service has allowed the company to expand into a variety of markets from supplying todays leading fan manufacturers and developers to the retail sector. Verplas is accredited to BS EN ISO 9001: 2008 and continues to strive to ensure that quality remains at the forefront of our company goals. Minimises air leakage

- Installer friendly
- Profiles to suit any application
- Energy saving
- Building Regulation compliant

Verplas Self-Seal Thermal ducting is designed to assist in minimising heat transfer through the ductwork of your chosen ventilation system while preventing condensation forming in or on the duct.

Self-Seal Thermal Ducting is manufactured for use within unheated areas in residential applications such as loft spaces and ceilings voids.

Verplas Self-Seal insulated ducting range has high thermal properties which can help maintain the levels of heat retained within the ventilation system.



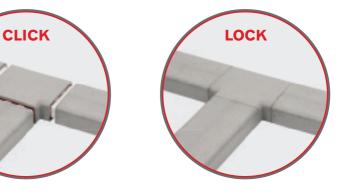
Using our unique patent pending click and lock sealing mechanism, the Self-Seal Thermal Ducting system helps to prevent leakage within the duct compared to traditional methods such as tape, sealant and fixing screws. The simple click and lock connections provide a quality finish and significantly reduce the risk of poor installation on site. For self-build homes and larger private developments, the 160mm diameter thermal ducting provides the ideal solution for installations commonly within the loft space and help to maximise fan performance.

Designed in a variety of dimensions 204x60mm, 220x90mm, 125mm & 160mm to provide designers and specifiers with options to minimise system resistance and help to gain maximum airflow performance.

With over a million pounds of stock available for next day delivery to UK mainland, Verplas' supporting network of carriers will ensure your project runs smoothly and on schedule.



Site constraints such as shallow ceiling void spaces can be overcome with the low profile 204x60mm rectangular. While high airflow ducting requirements to combat today's apartment purge ventilation needs, can be achieved using our 220x90mm rectangular system.



The versatile and commonly used 125mm diameter circular duct, offers low resistance solutions for small to medium properties. This lightweight, yet robust ducting solution allows large ducting sets to be built and fixed in position by a single installer. The pre-moulded click and lock connections, provide added strength and rigidity.

### Self-Seal Thermal Ducting

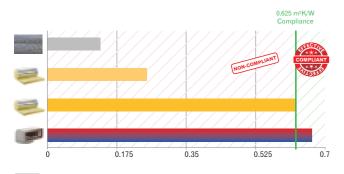
### Pressure Loss Data

The Verplas Self-Seal Thermal is manufactured from Neopor® graphite impregnated expanded polystyrene (EPS) with infrared absorbers and reflectors, which significantly improves the thermal resistance of the material compared with standard EPS.

The Neopor® material is fully tested to meet the thermal conductivity requirements of BASF - EN13163, to assist with the prevention of condensation and is Flame Retardant to DIN 4102 B1.

Verplas Thermal Ducting has a minimum Density of 25 kg/m<sup>3</sup> and therefore achieves a Thermal Conductivity of 0.03 W/mK, which at 20mm thickness, provides a minimum Thermal Resistance or R value of 0.666 m<sup>2</sup>K/W.

This exceeds the current UK Domestic Ventilation Regulation requirements of: Part F 2010 Domestic Ventilation Compliance Guide and NHBC Guidance Document Chapter 3.2. Which states that the Thermal Resistance of the insulating material should be equivalent to a minimum 25mm, with a thermal conductivity of 0.04 W/mK which gives a minimum Thermal Resistance requirement of 0.625 m<sup>2</sup>K/W.



Aluminium Coated Bubble Foil 4mm Thick (1 Laver) with Thermal Conductivity 0.03 W/mK Mineral Wool 10mm Thick with Thermal Conductivity 0.04 W/mK Mineral Wool 25mm Thick with Thermal Conductivity 0.04 W/mK Verplas Self-Seal Thermal with Thermal Conductivity 0.03 W/mK

The table above shows that the Verplas Self-Seal Thermal Ducting range exceeds this minimum requirement and offers Thermal Resistance values in the range of 0.666 to 0.750  $m^2\mbox{K/W}$  , subject to the system size chosen.



The Verplas Self-Seal Thermal Ducting range has been designed to be installer friendly and utilises the patent pending push, click and lock mechanism. To ensure joint integrity and exceed the requirements set out in DW/143 Class A Leakage Test and DW/154 ductwork standards. The full range has also been independently airflow performance tested, by the Building



Research Establishment and the resulting performance curves are shown opposite. It is also compatible with our standard range of PVC Ducting and can be fixed with our PVC Coated Banding.

A comprehensive range of fittings are available for each system size, including; Horizontal and Vertical bends, Tee-Pieces and Plenums and Ducting available in 1m and 2m lengths to provide a complete cost effective solution for individual installations, with minimum waste on site.

Pre-packaged in boxes of 6 for all fittings and lengths of ducting, allows installers to carry multiple components to overcome tricky design changes on site.

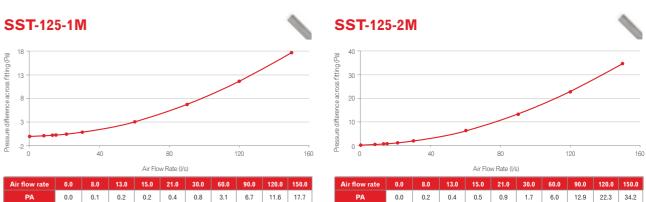
All Self-Seal Thermal systems are compatible for use only with Verplas standard PVC ducts and fittings.

For more technical information and Product Data Sheets or to arrange a call from your local sales representative, please visit our website at www.verplas.co.uk or contact our Sales Office on 01202 825898.

#### Neopor® is a registered trademark of BASF SE



#### VERPLAS THERMAL PRESSURE LOSS 125mm

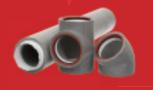






Telephone 01202 825898

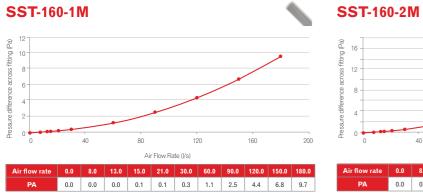




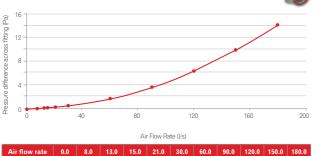
### **THERMAL** Pressure Loss Data

### Pressure Loss Data

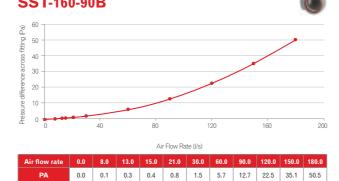
#### VERPLAS THERMAL PRESSURE LOSS 160mm







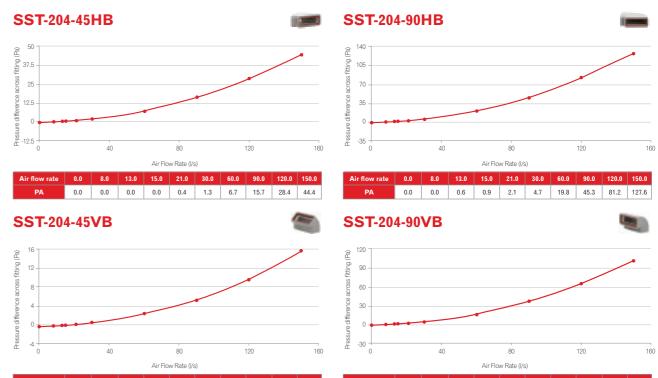
**SST-160-45B** 



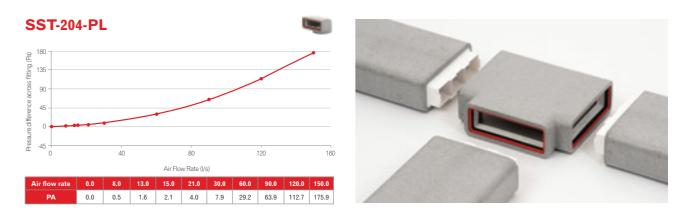


#### VERPLAS THERMAL PRESSURE LOSS 204X60mm





0.0 8.0 13.0 15.0 21.0 30.0 60.0 90.0 120.0 0.0 0.0 0.0 0.0 0.0 0.4 2.2 5.2 9.7 15.7 PA



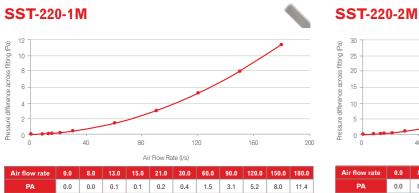


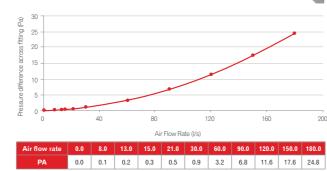
Air flow rate	0.0	8.0	13.0	15.0	21.0	30.0	60.0	90.0	120.0	150.0
PA	0.0	0.0	0.3	0.6	1.5	3.6	15.6	35.8	64.4	101.8

### Pressure Loss Data

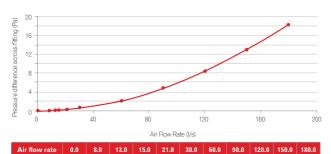
### **Dimensional Data**

#### VERPLAS THERMAL PRESSURE LOSS 220X90mm





#### **SST-220-45HB**



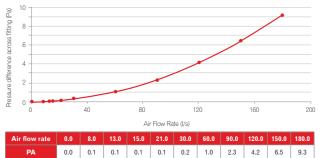


0.0 0.2 0.4 0.5 1.0 1.9 6.9 15.2 16.9 42.1 61.1

120

#### 0.0 0.1 0.1 0.1 0.2 0.5 2.1 4.8 8.5 13.0 18.2

#### SST-220-45VB

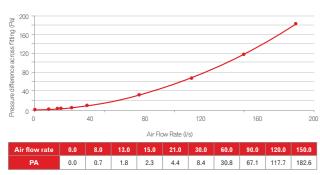




PA

SST-220-90VB







#### 204x60mm and 220x90mm





	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)
SST-204-45HB 204x60mm	240	244	100
SST-220-45HB 220x90mm	252	260	130



	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)
SST-204-TP 204x60mm	324	284	100
SST-220-TP 220x90mm	340	300	130



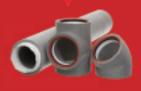
	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)
SST-204-90VB 204x60mm	140	244	100
SST-220-90VB 220x90mm	170	260	130



	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)
SST-204-DDCON 204x60mm	60	206.2	62.2
SST-220-DDCON 220x90mm	60	222.2	92.2

All Thermal 1 & 2 metre ducts are supplied complete with a single duct to duct connector. All Fittings such as bends are each supplied complete with 2 number (T-Pieces supplied with 3) duct to fitting connectors for joining to Verplas Thermal duct work.







	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)
SST-204-2M 204x60mm	2000	244	100
SST-220-2M 220x90mm	2000	260	130
331-220-2101 22029011111	2000	200	130



	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)
SST-204-90HB 204x60mm	284	244	100
SST-220-90HB 220x90mm	300	260	130



	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)
SST-204-45VB 204x60mm	128	244	138
SST-220-45VB 220x90mm	158	260	160



	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	DIAMETER (mmØ)	
SST-204-PL 204x60mm	210	244	130	169.5	
SST-220-PL 220x90mm	210	260	160	169.5	



	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)
SST-204-DFCON 204x60mm	65.3	218	73
SST-220-DFCON 220x90mm	65.3	234	103

### THERMAL Dimensional Data

# Self-Seal Thermal Ducting

#### 125mmØ and 160mmØ

	LENGTH (mm)	DIAMETER (mmØ)		LENGTH (mm)	DIAMETER (mmØ)
SST-125-1M 125mm	1000	169.5	SST-125-2M 125mm	2000	169.5
SST-160-1M 160mm	1000	200	SST-160-2M 160mm	2000	200
				0	
	LENGTH (mm)	DIAMETER (mmØ)		HEIGHT (mm)	DIAMETER (mmØ)
SST-125-TRAP 125mm	180	169.5	SST-125-45B 125mm	203	169.5
SST-160-TRAP 160mm	152	200	SST-160-45B 160mm	227	200
	HEIGHT (mm)	DIAMETER (mm∅)		LENGTH (mm)	DIAMETER (mm∅)
SST-125-90B 125mm	209	169.5	SST-125-TP 125mm	245	169.5
SST-160-90B 160mm	240	200	SST-160-TP 160mm	280	200
				0	
	LENGTH (mm)	DIAMETER (mmØ)	_	LENGTH (mm)	DIAMETER (mmØ)
SST-125-DDCON 125mm	60	127.2	SST-125-DFCON 125mm	65.3	142.2
SST-160-DDCON 160mm	60	162.2	SST-160-DFCON 160mm	65.3	173.2

#### 204 x 60mm

ITEM	PART NUMBER	DUCTING SIZE	DESCRIPTION	SUPPLIED
	SST-204-1M	204x60mm 1m Length	Self-Seal Thermal 204x60mm 1 metre length complete with 1 male duct to duct connector	6 per box
	SST-204-2M	204x60mm 2m Length	Self-Seal Thermal 204x60mm 2 metre length complete with 1 male duct to duct connector	6 per box
	SST-204-90HB	204x60mm	Self-Seal Thermal 204x60mm horizontal 90° bend complete with female click and lock fittings	6 per box complete with 12 connectors
	SST-204-45HB	204x60mm	Self-Seal Thermal 204x60mm horizontal 45° bend complete with female click and lock fittings	6 per box complete with 12 connectors
	SST-204-TP	204x60mm	Self-Seal Thermal 204x60mm T-Piece complete with female click and lock fittings	6 per box complete with 18 connectors
	SST-204-90VB	204x60mm	Self-Seal Thermal 204x60mm vertical 90° bend complete with female click and lock fittings	6 per box complete with 12 connectors
F	SST-204-45VB	204x60mm	Self-Seal Thermal 204x60mm vertical 45° bend complete with female click and lock fittings	6 per box complete with 12 connectors
	SST-204-PL	204x60mm	Self-Seal Thermal 204x60mm to 125mmØ plenum complete with female click and lock fittings	6 per box complete with 12 connectors
in	SST-204-DDCON	204x60mm	Self-Seal Thermal 204x60mm male duct to duct connector	Individually
000	SST-204-DFCON	204x60mm	Self-Seal Thermal 204x60mm male duct to fitting click and lock connector	Individually

All Thermal 1 & 2 metre ducts are supplied complete with a single duct to duct connector. All Fittings such as bends are each supplied complete with 2 number (T-Pieces supplied with 3) duct to fitting connectors for joining to Verplas Thermal duct work.

Telephone 01202 825898



All Thermal 1 & 2 metre ducts are supplied complete with a single duct to duct connector. All Fittings such as bends are each supplied complete with 2 number (T-Pieces supplied with 3) duct to fitting connectors for joining to Verplas Thermal duct work.

## Self-Seal Thermal Ducting

# Self-Seal Thermal Ducting

#### 220 x 90mm

ITEM	PART NUMBER	DUCTING SIZE	DESCRIPTION	SUPPLIED
	SST-220-1M	220x90mm 1m Length	Self-Seal Thermal 220x90mm 1 metre length complete with 1 male duct to duct connector	6 per box
	SST-220-2M	220x90mm 2m Length	Self-Seal Thermal 220x90mm 2 metre length complete with 1 male duct to duct connector	6 per box
	SST-220-90HB	220x90mm	Self-Seal Thermal 220x90mm horizontal 90° bend complete with female click and lock fittings	6 per box complete with 12 connectors
	SST-220-45HB	220x90mm	Self-Seal Thermal 220x90mm horizontal 45° bend complete with female click and lock fittings	6 per box complete with 12 connectors
	SST-220-TP	220x90mm	Self-Seal Thermal 220x90mm T-Piece complete with female click and lock fittings	6 per box complete with 18 connectors
	SST-220-90VB	220x90mm	Self-Seal Thermal 220x90mm vertical 90° bend complete with female click and lock fittings	6 per box complete with 12 connectors
	SST-220-45VB	220x90mm	Self-Seal Thermal 220x90mm vertical 45° bend complete with female click and lock fittings	6 per box complete with 12 connectors
	SST-220-PL	220x90mm	Self-Seal Thermal 220x90mm to 125mmØ plenum complete with female click and lock fittings	6 per box complete with 12 connectors
	SST-220-DDCON	220x90mm	Self-Seal Thermal 220x90mm male duct to duct connector	Individually
000	SST-220-DFCON	220x90mm	Self-Seal Thermal 220x90mm male duct to fitting click and lock connector	Individually

#### 125mmØ

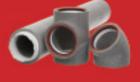
ITEM	PART NUMBER	DUCTING SIZE	DESCRIPTION	SUPPLIED
	SST-125-1M	125mm Ø 1m Length	Self-Seal Thermal 125mmØ 1 metre length complete with 1 male duct to duct connector	6 per box
	SST-125-2M	125mm Ø 2m Length	Self-Seal Thermal 125mmØ 2 metre length complete with 1 male duct to duct connector	6 per box
	SST-125-90B	125mmØ	Self-Seal Thermal 125mmØ 90° bend complete with female click and lock fittings	6 per box complete with 12 connectors
	SST-125-45B	125mmØ	Self-Seal Thermal 125mmØ 45° bend complete with female click and lock fittings	6 per box complete with 12 connectors
	SST-125-TP	125mmØ	Self-Seal Thermal 125mmØ T-Piece complete with female click and lock fittings	6 per box complete with 18 connectors
Coming Soon	SST-125-TRAP	125mmØ	Self-Seal Thermal 125mmØ condensation trap complete with male duct to duct connectors & 22mmØ condensate connection	Individually
0	SST-125-DDCON	125mmØ	Self-Seal Thermal 125mmØ male duct to duct connector	Individually
0	SST-125-DFCON	125mmØ	Self-Seal Thermal 125mmØ male duct to fitting click and lock connector	Individually

All Thermal 1 & 2 metre ducts are supplied complete with a single duct to duct connector. All Fittings such as bends are each supplied complete with 2 number (T-Pieces supplied with 3) duct to fitting connectors for joining to Verplas Thermal duct work.

Telephone 01202 825898

All Thermal 1 & 2 metre ducts are supplied complete with a single duct to duct connector. All Fittings such as bends are each supplied complete with 2 number (T-Pieces supplied with 3) duct to fitting connectors for joining to Verplas Thermal duct work.

Visit www.verplas.co.uk



## Self-Seal Thermal Ducting

### More Verplas Product Ranges

#### 160mmØ

ITEM	PART NUMBER	DUCTING SIZE	DESCRIPTION	SUPPLIED
	SST-160-1M	160mmØ 1m Length	Self-Seal Thermal 160mmØ 1 metre length complete with 1 male duct to duct connector	6 per box
	SST-160-2M	160mmØ 2m Length	Self-Seal Thermal 160mmØ 2 metre length complete with 1 male duct to duct connector	6 per box
	SST-160-90B	160mmØ	Self-Seal Thermal 160mmØ 90° bend complete with female click and lock fittings	6 per box complete with 12 connectors
	SST-160-45B	160mmØ	Self-Seal Thermal 160mmØ 45° bend complete with female click and lock fittings	6 per box complete with 12 connectors
	SST-160-TP	160mmØ	Self-Seal Thermal 160mmØ T-Piece complete with female click and lock fittings	6 per box complete with 18 connectors
Coming Soon	SST-160-TRAP	160mmØ	Self-Seal Thermal 160mmØ condensation trap complete with male duct to duct connectors & 22mmØ condensate connection	Individually
0	SST-160-DDCON	160mmØ	Self-Seal Thermal 160mmØ male duct to duct connector	Individually
0	SST-160-DFCON	160mmØ	Self-Seal Thermal 160mmØ male duct to fitting click and lock connector	Individually
0	SST-160-ADAPTER	160mmØ – 150mmØ	Self-Seal Thermal 160mmØ – 150mmØ Adapter	Individually

Established in 1986, Verplas Ltd is one of the UK's leading ventilation ducting manufacturers. With increasing capabilities within extrusion and plastic injection moulding, Verplas' wide range of UK ventilation products has continued to lead the way within the domestic ventilation market for nearly 30 years. See Below for most of our popular product ranges available now:



All Thermal 1 & 2 metre ducts are supplied complete with a single duct to duct connector.

All Fittings such as bends are each supplied complete with 2 number (T-Pieces supplied with 3) duct to fitting connectors for joining to Verplas Thermal duct work.



Verplas Limited, Unit 6-8 Verwood Industrial Estate Blackhill, Verwood, Dorset BH31 6HA T +44 (0)1202 825898 F +44 (0)1202 821600 W www.verplas.co.uk

E & O: Verplas policy of continuous innovation and improvement, we reserve the right to alter product specification and appearance without prior notice.