

Heatshield S500

Water Based Acrylic Sealant



Product Description

Heatshield S500 is an economic, water based acrylic sealant used to maintain fire resistance in compartment walls (including gypsum drywalls) and floors where openings in these construction elements are formed to accommodate building service penetrations or where linear joints (discontinuities) are located. In a fire situation, **Heatshield S500** provides a robust barrier which prevents the passage of flames and hot gases through these openings and which restricts temperature rise on the non-fire side of the wall or floor. **Heatshield S500** is comprehensively tested and independently certified for use with a wide range of penetrating services, including small diameter plastic pipes, and in most cases requiring only a 10mm deep layer of sealant. It can be used in low movement linear gaps up to 40mm wide. (see performance data).

Heatshield S500 is available in 300ml cartridges and 600ml foils as standard.

300ml cartridges packed - 25 per carton
600ml foils packed - 20 per carton

Intended Use

Heatshield S500 is comprehensively tested and independently certified in a wide range of applications, from linear gap seals in concrete walls and floors to service penetrations seals in concrete walls and floors and gypsum drywalls.

A. Linear Gap Seals

240 Mins from 15mm to 40mm wide vertical joints in concrete walls and 180 Mins for up to 30mm wide horizontal joints in concrete walls. 120 Mins up to 25mm wide joints in concrete floors.

B. Penetration Seals

120 Mins fire resistance (Insulation & Integrity) when used to seal a wide range of services penetrating concrete walls and floors and gypsum drywalls. Single electrical cables, cable bundles, insulated steel pipes up to 152mm diameter and copper pipes up to 108mm diameter, loaded cable trays up to 450mm wide.

C. Plastic Pipes & Conduits

120 Mins fire resistance (Insulation & Integrity) when used to seal a range of PVC-U pipes and electrical conduits up to 160mm diameter x 6.2mm thick in conjunction with other Greentech Heatshield products (ie B50-ST Batts, WS50 & FS50 Wrapstrip and PC120 Pipe Collars etc). Please refer to relevant detail drawings.

Application Instructions

Heatshield S500 is easily installed using readily available hand tools (standard cartridge gun or professional foil gun, knife, and spatula or flat tool for finishing).

A. Linear Joints

1. Remove all loose debris, grease, oil and bituminous material.
2. Install backing material as per manufacturers recommendations. A width to depth ratio of 2:1 for the sealant is recommended to avoid future defects caused by material shrinkage.
3. Extrude sealant into joint removing any air voids by applying light pressure. Use a wet spatula or flat tool to provide a smooth finish to the seal.

B. Penetration Seals

1. Ensure the annular space around the service penetration complies with the manufacturers recommendations, and is free from contaminants and loose material.
2. Install backing material to allow specified depth of sealant around services.
3. Cut nozzle to desired angle/bead size and extrude into the annular space. Remove air voids by applying light pressure and ensure the sealant is adequately adhered to the substrate and service penetration.

Key Benefits

- Independently Tested & Certified
- Water Based
- Solvent Free
- Easy Installation
- Flexible
- Durable
- Non Hazardous
- Economic Solution
- 3rd Party Audited & Accredited
- International Approvals
- Readily Available via Local Representatives
- Ongoing testing and certification program to expand range of applications
- ISO 9001 Quality Assured

Coverage

$$\frac{\text{Sealant Depth} \times \text{Gap Width} \times \text{Total Length}}{300}$$

= No of cartridges Required



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European Assessment Documents:
EAD350454-00-1104 - Sep 2017
EAD350141-00-1106 - Sep 2017



ENCG R.40333

Certificate No:
UL-EU-01300-EN

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Water Based Acrylic Sealant



Physical Properties

Composition	Viscous water based paste with additives
Colour	Grey White. Other colours available subject to min order qty.
Sg	1.6 - 1.66
pH	7.9 - 8.66
Thermal Conductivity	0.845 W/mk
Solids %:	79% - 82%
Skin Forming Time	8 - 10 mins @ 24°C & 50%
Tack Free Time	27 mins @ 24°C & 50%
Depth Cure	2mm to 3mm per day
Application Temperature	+4°C - +38°C
Service Temperature	-15°C - +75°C
Limitations	Do not use in conditions of continuous immersion, below ground or in areas of high mechanical abrasion.
Storage	Store between 10 - 35°C, do not store below 5°C
Shelf Life	Min 15 months in unopened tubes.

Fire Performance

Reaction to Fire	BS EN13501.1	Class E
Resistance to Fire	BS EN13501.2	

Linear Gap Seals - BS EN1366.4

Min 120mm thick rigid wall with sealant to both sides of wall (vertical orientation)

Depth of Sealant	Max Joint Width	Depth of Backing Material*	Fire Resistance	Fire Performance Classification
7.5mm	15mm	50mm	240 mins (E & I)	EI 240-V-X-B-W10 to W15
12mm	25mm	45mm	240 mins (E & I)	EI 240-V-X-B-W10 to W25
20mm	40mm	40mm	240 mins (E & I)	EI 240-V-X-B-W10 to W40

Min 120mm thick rigid wall with sealant to both sides of wall (horizontal orientation)

Depth of Sealant	Max Joint Width	Depth of Backing Material*	Fire Resistance	Fire Performance Classification
12mm	15mm	45mm	240 mins (E & I)	EI 240-T-X-B-W10 to W15
15mm	30mm	45mm	180 mins (E & I) 240 mins (E)	EI 180-T-X-B-W10 to W30 E 240-T-X-B-W10 to W30

Min 150mm thick rigid floor with sealant to top side of floor

Depth of Sealant	Max Joint Width	Depth of Backing Material*	Fire Resistance	Fire Performance Classification
12mm	15mm	138mm	120 mins (E & I)	EI 120-H-X-B-W0 to W15
12mm	25mm	138mm	120 mins (E & I)	EI 120-H-X-B-W0 to W25

Penetration Seals - BS EN1366.3

Min 135mm thick flexible wall with sealant to both sides of wall				
Penetrations Specification	Depth of Sealant	Depth of Backing Material*	Fire Resistance	Fire Performance Classification
Cables $\varnothing \leq 14\text{mm}$	10x10mm bead	30mm	120 mins (E & I)	EI 120
PVC Electrical Conduit $\varnothing \leq 20\text{mm}$	10x10mm bead	30mm	120 mins (E & I)	EI 120 C/C
Insulated Copper Pipes $\varnothing \leq 108\text{mm}$	11x10mm bead	30mm	120 mins (E & I)	EI 120 C/C
Insulated Steel / Cast Iron Pipes $\varnothing \leq 152.2\text{mm}$	10x10mm bead	30mm	120 mins (E & I)	EI 120 C/C

Min 125mm thick flexible wall with sealant to both sides of wall				
Penetrations Specification	Depth of Sealant	Depth of Backing Material*	Fire Resistance	Fire Performance Classification
Cables Single or Bundle up to 10 No with outer $\varnothing \leq 14\text{mm}$	10mm	30mm	120 mins (E & I)	EI 120
Single Cable $\varnothing \leq 23\text{mm}$	12mm	Full Depth	120 mins (E) 20 mins (I)	E 120 EI 20
PVC Electrical Conduit $\varnothing \leq 20\text{mm}$	10mm	Full Depth	120 mins (E & I)	EI 120 C/C
Insulated Copper Pipes $\varnothing \leq 108\text{mm}$	10mm	Full Depth	120 mins (E & I)	EI 120 C/C
Insulated Steel / Cast Iron Pipes $\varnothing \leq 152.2\text{mm}$	10mm	Full Depth	120 mins (E & I)	EI 120 C/C

Min 150mm thick rigid floor with sealant to both sides of floor				
Penetrations Specification	Depth of Sealant	Depth of Backing Material*	Fire Resistance	Fire Performance Classification
Cables Single or Bundle up to 5 No with outer $\varnothing \leq 14\text{mm}$	10mm	130mm	120 mins (E & I)	EI 120
Cables Single or Bundle up to 10 No with outer $\varnothing \leq 14\text{mm}$	12mm	126mm	120 mins (E & I)	EI 120
Single Cable $\varnothing \leq 60\text{mm}$	12mm	126mm	120 mins (E & I)	EI 120
Insulated Steel Pipe $\varnothing \leq 22.2\text{mm}$	12mm	126mm	120 mins (E) 90 mins (I)	E 120 C/C EI 90 C/C
Insulated Copper, Steel or Cast Iron Pipes $\varnothing \leq 108\text{mm}$	12mm	126mm	120 mins (E) 90 mins (I)	E 120 C/C EI 90 C/C
Insulated Steel or Cast Iron Pipes $\varnothing \leq 152.2\text{mm}$	10mm	30mm	120 mins (E) 90 mins (I)	E 120 C/C EI 90 C/C
Insulated Copper, Steel or Cast Iron Pipes $\varnothing \leq 15\text{mm}$	12x12mm Bead	Full Depth	120 mins (E & I)	EI 120 C/C

*Backing Material:

Backing material for ALL seals is minimum 50kg /m³ mineral wool packed into linear gap seals or annular space around services.





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EAD350454-00-1104 - Sep 2017
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MANUFACTURED IN U.A.E.

Fire Stopping of other services with Heatshield S500 Acrylic Firestop Sealant.

Flexible and rigid walls and rigid floors

Heatshield S500 Acrylic Firestop Sealant has been tested and certified when used together with other Greentech Heatshield products such as **B50-ST Coated Batts**, **PC120 Pipe Collars** and **FS50 Wrapstrip** and can seal the following types of service penetrations:

Single perforated cable trays up to 450mm wide in apertures up to 550mm wide x 200mm high.

Complex Multi service penetrations containing cable trays, single cables, cable bundle, pvc conduits, pvc pipes, insulated copper, steel and cast iron pipes in single apertures of up to 1000mm wide x 600mm high

Single plastic pipe seals with **PC120 Pipe Collars** or **FS50 Wrapstrip**.

PLEASE CONSULT THE RELEVANT GREENTECH HEATSHIELD PRODUCT TECHNICAL DATA SHEETS FOR PERFORMANCE INFORMATION.

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