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# Mortar - BD-C75





Product name	duct name Fire Stop compound	
Product Code	BD-C75	
Revision Date	30/01/2016	
Revision number	01	





#### INTRODUCTION

Fire Stop Compound is a gypsum based mortar material, used to reinstate the fire resistance performance of floor constructions where they have been provided with apertures for the penetrations of multiple services. Fire Stop Compound is supplied as a dry material, and is mixed with water to the required ratio prior to installation.

Fire Stop Compound when mixed is self-supporting in a floor to spans of 700mm. Temporary shuttering is required to support the wet weight of the Fire Stop Compound . The seal is high strength, non-combustible and is load bearing. Fire Stop Compound has a fire resistance to EN1366-3 up to El120.

#### The advantages of the Silverseal Compound are as follows:

- Fire Integrity up to 4 hours
- Rapid setting, zero shrinkage formulation can be used as pourable or trowel grade, gas tight seals
- Excellent workability ranging from stiff to pourable mix.
- Good load bearing Performance in floor seals. (Consult Blue diamond Technical Team for details)











#### **SPECIFICATION**

Description	Off White single part gypsum-based compound.	
Density	850 - 950 kg/m³	
Loadbearing	2.5k N/m2 UDL	
Fire Resistance	EN1366 EI 120 / E120 / 240mins	
Classification	EN13501:2	
Acoustic Performance R'w (C; Ctr) (dB)	47 dB reduction at 100 mm	
Max Unsupported Span	700 mm (Consult FSi for larger spans)	
Thermal Conductivity (U Value) @100mm	0.21 - U Value I / 'R' 2.1	
Thermal Resistance 'R' (t/k) @100mm	0.48	
Expansion on Setting (%)	0.1	

Fire Stop Compound is intended for sealing around all types of M&E service penetrations through floors and walls, where a rigid seal is required The unique Fire Stop Compound enables even the most demanding applications to be covered.

#### Mixing

Fire Stop Compound can be mixed preferably by mechanical paddle or manually if required. Measure out the correct amount of clean water into a clean container to achieve the desired consistency

(Fire Stop Compound: water ratio):

Pourable Mix ratio of 2½:1 Trowelable Mix ratio of 3:1

Gradually add the Fire Stop Compound stirring continually. Continue mixing until the Fire Stop Compound is mixed to a smooth even consistency. Any spillage should be wiped up with a damp cloth before setting occurs. May stain Pipes and services. Mix only enough material sufficient for use within the recommended pot life (20-30 minutes). Pot life and set times will be reduced for lower water content and higher temperatures.

Installation should not be carried out when temperatures are above 35°C. Setting times are normally between 30 and 90 minutes. Warning: Do not attempt to extend working time by remixing with additional water once the mortar has started to set, as this will interfere with the setting process. Always mix in clean buckets. Using dirty buckets containing remains of compound from earlier mixes may reduce working time.

Fit damming board/shuttering to bottom of opening. Damming materials must be able to support the wet weight of the compound under pouring conditions. Pour Fire Stop Compound to the required 100mm thickness.

#### **Load Bearing Floor**

Seals in a concrete slab opening, e.g. within a service riser, the unique combination of structural properties of Fire Stop Compound , particularly Fire Stop Compound , enables the finished seal to support considerable loads, over quite large spans, without the need for steel reinforcement.

#### **Wall Penetrations**

Fire Stop Compound can be mixed and trowelled into a vertical opening, and worked around services without slumping. They can also be cast into blocks for building into larger openings, using a stiff mix of the same compound as bedding.



Blue Diamond Fire Protection

Al Quoz -1, P.O.Box: 25468

Dubai - UAE







#### **Load Bearing Seals around Unsupported Fire Dampers**

Fire Stop Compound has been successfully tested at BRE around both single and multiple fire damper assemblies, supported only by the mortar, in wall and floor openings. The excellent crushing strength and shear resistance of Fire Stop Compound seal ensures that the installation frame will be retained in the wall or floor, if the ductwork should collapse, even when the HVAC Installation frame is not tied back to the structure.

#### **Setting and Hardening**

Unlike cement-based fire stopping mortars, Blue diamond plaster based compound achieve maximum wet strength in only about four hour after casting. Ultimate strength is reached when dry fully hardened. The drying time will be dependent on the prevailing ambient conditions.

Fire Stop Compound is available in 20kg sacks. Add powder to clean tap water to the required consistency and coverage. Fire Stop Compound is to be installed in accordance with installation requirements. Extra installation details and technical support are available from FSi technical department. Please contact Blue diamond for Loadbearing calculations at all times.



#### INSTALLATION

Installation details and technical support are available from Blue diamond technical department or on the internet at www.bluediamondfireprotection.com

#### **Wall Openings**

For small holes and gaps, trowel a stiff mix into the opening to the correct depth. For larger holes, use an appropriate damming material to support the mix until it sets, or, if a fair faced finish is required to both sides, consider using a sandwich construction. Alternatively, the Fire Stop Compound may be pre- cast into convenient sized blocks, a stiff mix being used as a bedding mortar. All combustible services (Plastic Pipes etc.) should have a tested fire rated closure device/material fitted prior to the pouring of the Fire Stop Compound. These are typically Blue diamond Intumes- cent pipe wraps.

#### **Floor Openings**

When sealing holes in floor slabs, appropriate shuttering must be installed, cut to fit tightly around any services within the opening, to support the wet mix until it sets. Non-combustible shuttering materials, such as mineral fibre slab, can be left in place, but combustible materials must be removed, after the mix has set. For complex penetrations it may be preferable, to initially form a thin seal around all services, with a nominal 5-10mm layer of the Fire Stop Compound mix. Once this has set, the remaining depth of seal, should be poured in one operation. All combustible services (Plastic Pipes etc.) should have a tested fire rated closure device/material fitted prior to the pouring of the Fire Stop Compound. These are typically Blue diamond Intumescent pipe wraps.

#### Yield

Typical number of 20kg bags per m<sup>2</sup> at 100mm thick for Fire stop Compound is 4 Bags, though service sizes, mixing ratios could possibly effect vield.

For further information see Installation Manual.











#### **COMPLIANCE**

Fire Stop Compound is manufactured in the EU, meeting the highest quality standard in compliance to ISO EN 9001. Tested to EN standards, CE Marked to ETAG 026 and BS 476.



#### STORAGE AND DISPOSAL

Fire Stop Compound is may not be affected by an outdoor environment. However, for long term storage and ease of installation it is recommended that it should be stored indoors, ideally in dry conditions. Ideal storage temperature between -5°C and +30°C. For health and safety details refer to FSi technical department.



#### **ENVIRONMENT**

Blue diamond contribute to Green Building by having a manufacturing policy of 100% recycle and 0% landfill for all products.

Fire Stop contributes to a Green Building: -

Low VOC (Inert Product no Fibre's).

No Power Tools required for installation (no energy source required).

Smoke and Air Tightness.

Noise Reduction.

Thermal Insulation.

Recycling of Packaging.

Manufactured in accordance with ISO 14001.

The life cycle of Fire Stop Compound is over 20 years.









Product name	Fire stop Compound
Product Code	BD-C75
Revision Date	30/01/2016
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#### Section 1: Identification of the substance/mixture and of the company / undertaking

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#### 1.1 Product identifier

Product name	Fire stop Compound
Product Code	BD-C75



#### 1.2. Relevant identified uses of the substance or mixture and uses advised against



#### 1.3. Details of the supplier of the safety data sheet

·		
Company Name	Blue Diamond Fire Protection Al Quoz -1, P.O.Box: 25468 Dubai - UAE	
Tel	(00971) 4 340 3700	
Fax	(00971) 4 340 5122	
Email	bluedbc@eim.ae	



#### 1.4. Emergency telephone number

#### Section 2: Classification of the substance or mixture



#### 2.1. Composition

Dry Blended mixture of Calcium Sulphate Hemihydrate together with aggregates and traces of modifying additives and pigments (below 1%).









Product	Material	Concentration (by weight)	CAS Number
Silverseal Standard	Calcium Sulphate	80 - 95%	10034-76-1
	Perlite	5 - 20%	93763-70-3
Silverseal EN Standard	Calcium Sulphate	80 - 95%	10034-76-1
	Perlite	5 - 20%	93763-70-3
Silverseal HS	Calcium Sulphate	50 - 70%	10034-76-1
	Limstone	30 - 50%	47 - 31 -1
Silverseal EN HS	Calcium Sulphate	50 -70%	10034-76-1
	Limestone	30 - 50%	471 - 31 -1



#### 2.2. Reach

Fire stop Compound are exempt rom the obligation to pre-register under REACH legislation. The exemption is granted in Annex V, Paragraph 7 as all materials are naturally occuring minerals found in nature.

Gypsum based plasters are not classified hazardous under CHIP 2 Regulations 1994 (see Section 15).

#### **Section 3: Hazardous Information**



#### 3.1. Classification of the Mixture

Classification of the Mixture | This mixture is not classified as hazardous according to regulation | Mixture | (EC) No. 1272/2008 [EU-GHS/CLP]



#### 3.2. Label elements

Label elements This mixture is not labelled according to regulation (EC) No.1272/2008 [EU –GHS/CLP].



#### 3.3. Other elements

Other elements | Dust may be produced during dry state handling











#### Section 4: First aid measures



#### 4.1. First-Aid Measures

Skin contact	Wash immediately with plenty of soap and water	
•	Wash eye with clean water for 10 minutes and seek medical advice if irritation persists	
Ingestion	Wash out mouth and drink plenty of water	
Inhalation	Remove person to fresh air	

#### **Section 5: Fire-Fighting measures**



#### 5.1. Fire-fighting measures

Fire-fighing measures

Fire stop Compound is non-combustible and inhibits the spread of flame. Paper packaging is combustible, extinguish with water ect.

#### Section 6: Accidental Release measures



#### 6.1. Accidental Release measures

#### Accidental Release measures

Control and suppress dust formation, avoid dry sweeping. Use water spraying and/or vaccum systems.

Prevent Fire stop Compound contaminating drains and water courses as a powder or a slurry. Refer to Section 8 - Exposure/Protection and Section 13 - Disposal considerations.

#### **Section 7: Handling and Storage**



#### 7.1. Handling and Storage

#### **Handling and Storage**

Minimise and control dust when opening bags or mixing products. Avoid prolonged or repeated contact with Silverseal Compound on the skiin or eye contact. Wear protective clothing when mixing, or working with powdered or wet mortar mix. If handled manually use the correct "Materials Handling Techniques". Protect from dampness and humidity in storage.







#### Section 8: Exposure Controls / Persona Protection



#### 8.1.Exposure Controls / Personal Protection

#### **Occupational Exposure Limites**

•	
Substance	Calcium Sulphate
Total Inhalable	10mg/m <sup>3</sup> 8hr TWA OES
Total Respirable	5mg/m³ 8hr TWA
Substance	Perlire
Total Inhalable	10mg/m³ 8hr TWA MEL
Total Respirable	1mg/m³ 8hr TWA MEL
Substance	Limestone
Total Inhalable	10mg/m <sup>3</sup> 8hr TWA MEL
Total Respirable	4mg/m³ 8hr TWA MEL

Refer to cirrent edition of HSE E40 Occupational Exposure Limites

Respiratory	Control dust formation and ventilate the work area. If dust cannot be controlled wear a half facemask to EN149 Class FFP1
Skin	To avoid prolonged or repeated wet contact wear impermeable gloves. To avoid skin contact wear protective overalls and footwear To reduce the effecgts of skin contact apply a barrier cream to the hands
Eye	If powder or slurry are likely wear safety goggles to BS2092

#### **Section 9: Physical and Chemical properties**



9.1. Physic	al and Ch	emical	Propert	ties
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Physical State	Powder, white to off white, or grey or pink	
Odour	Odourless	
рН	Neutral	
Melting point/range	>1000°C	
Flash Point	N/A	
Ignition Temp	N/A	
Decomposition Temp	Not Determined	













#### **Section 10: Stability and Reactivity**



#### 10.1. Stability and Reactivity

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Conditions to avoid	None			
Materials to avoid	None			
Hazardous Decomposition Products	None			

#### **Section 11: Texicological Information**



#### 11.1. Toxicological Information

<u> </u>	
Inhalation	Dust may irritate respiratory system, no known long-term effects.
Skin Contract	Prolonged contact with powder or wet mix, may dry skin leading to irritation
Eye Contact	Powder or wet mix may irritate by particulate in the short term
Ingestion	Ingestion is unlikely to cause any signification reaction or long term effect

#### **Section 12: Ecological Information**



#### 12.1. Ecological Information

**Mobility** Very sparingly soluble in water, forms a suspension and solidfies within approximatley 1 hour

#### Section 13: Dispose



#### 13.1. Dispose

#### Dispose

At an authorised landfill site. In England, northern Ireland and Wales dispose of to a seperate cell for high sulphate waste. For other countries dispose of in accordance with local and national control regulations.

Allow wet mixed plaster to go off before dispoal.

Do not wash mixed or dry plaster into drains or surface waters as this can cause water pollution

#### **Section 14: Transport Information**



#### 14.1. Transport Information

Not classified as hazardous for transport















#### **Section 15: Regulatory Information**



#### 15.1. Regulatory Information

Not classified as hazardous under CHIP 2 as amended by CHIP 96:- The Chemicals (Hazard Information and Packaging) Regulation 1994 as amended by CHIP 96 (Amendment) Regulations 1996.

Occupational Exposure Limits EH40 (reviewed and Reprinted annually) The Control of Substances Hazardous to health (COSHH) Regulations 1994.

This Safety Data Sheet is prepared in accordance with CHIP regulations and Directive 91/155/EEC

#### Section 16: Other Information



#### 16.1. Other Information

#### Recommended uses:

Material for use only as a fire-stopping Compound This information reflects typical values and is not a product specification No warranty is hereby expressed or implied

Such information given in this Product Health & Safety Information sheet is to the best of Blue diamond knowledge and belief accurate and reliable. It is the uses's responsibilty to satisfy itself as to the suitability and completeness of such information for their own particular use.













Product name	Fire Stop compound		
Product Code	BD-C75		
Revision Date	30/01/2016		
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#### INTRODUCTION

The purpose of this document is to give guidance to approved installers and suppliers who are engaged in the fire stopping of openings through floors and compartment walls using the Fire stop compound System.

All service holes through floors and compartment walls must be fire stopped to prevent the passage of fire, smoke and hot gases.

Fire stop compound System will provide a load bearing or a non-load bearing fire barrier with the following performance.

#### The result of this work will: -

- Prevent the spread of fire, smoke and hot gases through a building by containing it in the compartment of origin.
- Maintain the integrity of escape routes from a building.
- Reduce loss or damage to property from the effect of fire and smoke.
- Maintain pressure differential between compartments and ventilation channels.

TOOLS AND EQUIPMENT	
	Mixing Container
	Power Assisted Stirrer
	Suitable Litre Measure
0	Steel Tape Measure
	Hack-Saw
	Plastic Sheeting
	Power Drill & Drill bit
	Expanding Steel Anchors
	Similar Float
	Dust Pan & Brush

#### **★** TRAINING

All operatives to be engaged in installation of the Fire Stop compound System must have received relevant training from Blue diamond Technical Department or an approved supplier and be certified accordingly. All installation work must be carried out in accordance with the guidelines laid down in this manual.

Training facilities are provided by Blue diamond Technical Department to insure the correct installation procedures are followed to the approved fire barrier specification and to maintain a high standard of workmanship and quality.









#### FIRE STOP COMPOUND HS FM SYSTEM

The Fire stop compound System is a hydrite sulphate based pre-mixed dry blend and consists of inorganic inert fillers and foamed perlite. When mixed with water this produces a trowelable or pourable consistency suitable for fire barrier seals through openings in floors or walls.

The Fire stop compound is totally non-combustible and can be easily designed to provide either load-bearing or nonload- bearing seals for 2, 4 or 6 hour fire barriers. The Fire stop compound expands when activated with water creating an excellent seal around the service and a strong bond to the surrounding masonry. Fire stop compound contains no fibres, halogens solvents, silicone or free added silica. A unique feature of the Fire stop compound System is that it can be reactivated for up to 2 hours by remixing with small quantities of water if necessary every 30 minutes, so eliminating potential waste.

If a NON-LOAD BEARING SEAL is installed in a floor opening, an adequate warning notice or protective covering must be provided to prevent damage to the seal, and possible personnel injury.

If a LOAD BEARING SEAL is installed in a floor opening, an adequate warning notice or protective covering must be provided to prevent the damage to the seal and possible personnel injury especially during the first 48 hours of drying.

Once the seal is suitably dry, the maximum load-bearing capability of the seal is limited to 1.5kn/sq.m, which is considered more than adequate for maintenance personal access. (For increased loading please see below). Also, there should be a warning sign with information to avoid any point loading on the seal unless the load is spread over an area of minimum 0.09m<sup>2</sup>.

Silverseal Compound is suitable for openings in walls or floor slabs made from various substrates, most commonly brick, block work, dry lining and concrete.



#### PREPARATION FOR INSTALLATION

Ensure that all service penetrations are complete and installed to the satisfaction of the main contractors representative.

Remove all unnecessary combustible materials from the hole.

Using brush and dustpan, sweep all loose products from the inner surface of the hole and surrounding area local to the installation.

Place plastic sheet beneath the working area to catch any falling materials.

Remove any insulation or lagging on ducts or pipes in order to ensure a good seal with Silverseal Compound System.











Based on the recommendations of the approved fire test authority, a number of different designs are used depending on the size of the opening and the load-bearing requirement as detailed in table 3 over page. In the case of all load bearing fire barriers with reinforcement, the position of reinforcement must be at the mid-point of seal to allow foot traffic

SYSTEMS FOR SUPPORTING COMPOUND TABLE			
SYSTEM A	30mm x 30mm x 1.6mm mild steel angles spanning the shortest dimension at 900mm centres or nearest. Fixing angles to be of the same dimensions fixed with 8mm Rawl bolts.		
SYSTEM B	30mm x 30mm x 1.6mm mild steel angles spanning the shortest dimension at 600mm centres or nearest. Fixing angles to be of the same dimensions fixed with 8mm Rawl bolts.		
SYSTEM C	10mm diameter mild steel rod (rebar) at 250mm centres or nearest. To be fixed by drilling the concrete opening to allow the steel bar to lie within, giving a minimum of 50mm insert into the concrete.		
SYSTEM D	40mm x 40mm x 2mm mild steel angles bolted back to back forming a 400mm grid matrix. Fixing angles to be of the same dimensions fixed with 8mm Rawl bolts.		
SYSTEM E	40mm x 40mm x 2mm mild steel angles bolted back to back forming a 300mm grid matrix. Fixing angles to be of the same dimensions fixed with 8mm Rawl bolts.		
SYSTEM F	P1000 Unistrut 41mm x 41mm spanning the shortest dimension at 600mm centres or nearest. Fixed to the concrete floor using 8mm Rawl bolts.		
SYSTEM G	60mm x 60mm x 8mm mild steel angles spanning the shortest imension at 250mm centres or nearest. Fixing angles to 40mm x 40mm x 4mm fixed with 8mm Rawl bolts.		
SYSTEM H	80mm x 80mm x 8mm mild steel angles spanning the shortest dimension at 500mm centres or nearest. Fixing angles to 40mm x 40mm x 4mm fixed with 8mm Rawl bolts.		
SYSTEM I	80mm x 80mm x 8mm mild steel angles spanning the shortest dimension at 250mm centres or nearest. Fixing angles to 80mm x 80mm x 8mm fixed with 10mm Rawl bolts.		
SYSTEM J	100mm x 100mm x 12mm mild steel angles spanning the shortest dimension at 500mm centres or nearest. Fixing angles to 80mm x 80mm x 8mm fixed with 10mm Rawl bolts.		







FIRE RESIS	FIRE RESISTANCE AND COMPOUND THICKNESS TABLE 0.							
Type 1.	4	hour at 50mm	Only to be used up to a span of 600mm in a load bearing situation or up to 4700mm span for a non load bearing situation.					
Type 2.	Type 2. hours at 75mm		Only to be used up to a span of 1000mm in a load-bearing situation.					
Type 3.	2	hours at 100mm						
Type 4.	4	hours at 100mm						
Type 5.	4	hours at 150mm						

SEAL REINFORCEMENT TABLE TABLE 03						
SPAN	Non-Load Bearing	1.5kN/m²	2.5kN/m²	5kN/m²		
	Type 1,2 or 4a	Type 2,3 or 4	Type 3 or 5	Type 3 or 5		
Up to 1.44m²	No requirement					
Up to 600mm	Α	A + C or D	D	E		
Up to 900mm	В	B + C or D	Е	Е		
Up to 1500mm	B + C or D or F	D	Е	G or H		
Up to 2000mm	B + C or D or F	Е	G or H	G or H		
Up to 3000mm	B + C or D or F	Е	G or H	l or J		
Up to 4700mm	B + C or D or F	F or G				

Fire stop compound is available in 25kg dry bags and when it is mixed with clean water with a normal Ph (7.2 approx), it sets to a thermally insulating material, which is off white in colour. The coverage and water requirements for 1, 2 and 4-hour seals are given in table 3. Full weights per m² can be found in table 4.







COMPOUND REQUIRED (KG) PER WIDTH, LENGTH AND FIRE RESISTANCE  Width Fire Length (mm)							ABLE 04				
(mm)	Rating	100	200	300	400	500	600	700	800	900	1 mt
	1	0.43	0.87	1.30	1.73	2.16	2.59	3.02	3.46	3.89	4.32
100	2	0.64	1.28	1.92	2.56	3.20	3.83	4.47	5.11	5.75	6.39
	4	0.86	1.71	2.57	3.42	4.28	5.13	5.99	6.84	7.70	8.5
	1	0.87	1.73	2.59	3.46	4.32	5.18	6.04	6.91	7.78	8.6
200	2	1.28	2.56	3.83	5.11	6.39	7.67	8.95	10.22	11.50	12.7
	4	1.71	3.42	5.13	6.84	8.55	10.26	11.97	13.68	15.39	17.1
	1	1.30	2.59	3.89	5.18	6.48	7.78	9.07	10.37	11.66	12.9
300	2	1.92	3.83	5.75	7.67	9.59	11.50	13.42	15.34	17.25	19.1
	4	2.57	5.13	7.70	10.26	12.83	15.39	17.95	20.52	23.09	25.6
	1	1.73	3.46	5.18	6.91	8.64	10.37	12.10	13.84	15.55	17.2
400	2	2.56	5.11	7.67	10.22	12.78	15.34	17.89	20.45	23.00	25.5
	4	3.42	6.84	10.26	13.68	17.10	20.52	23.94	27.36	30.78	34.2
	1	2.16	4.32	6.48	8.64	10.80	12.96	15.12	17.28	19.44	21.6
500	2	3.20	6.39	9.59	12.78	15.98	19.17	22.37	25.56	28.76	31.9
	4	4.28	8.55	12.83	17.10	21.38	25.65	29.93	34.20	38.48	42.7
	1	2.59	5.18	7.78	10.37	12.96	15.55	18.14	20.74	23.33	42.6
600	2	3.83	7.67	11.50	15.34	19.17	23.00	26.84	30.67	34.51	38.3
	4	5.13	10.26	15.39	20.52	25.65	30.78	35.91	41.04	46.17	51.3
	1	3.02	6.04	9.07	12.10	15.12	18.14	21.17	24.19	27.21	30.2
700	2	4.47	8.95	13.42	17.89	22.37	26.84	31.31	35.78	40.26	44.7
	4	5.99	11.97	17.95	23.94	29.93	35.91	41.90	47.88	53.87	59.8
	1	3.46	6.91	10.37	13.84	17.28	20.74	24.19	27.65	31.10	34.5
800	2	5.11	10.22	15.34	20.45	25.56	30.67	35.78	40.90	46.01	51.1
	4	6.84	13.68	20.52	27.36	34.20	41.04	47.88	54.72	61.56	68.4
	1	3.89	7.78	11.66	15.55	19.44	23.33	27.21	31.10	34.99	38.8
900	2	5.75	11.50	17.25	23.00	28.76	34.51	40.26	46.01	51.76	57.5
	4	7.70	15.39	23.09	30.78	38.48	46.17	53.87	61.56	69.26	76.9
	1	4.32	8.64	12.96	17.28	21.60	42.66	30.24	34.56	38.88	43.2
1 mtr	2	6.39	12.78	19.17	25.56	31.95	38.34	44.73	51.12	57.51	63.9
	4	8.55	17.10	25.65	34.20	42.75	51.30	59.85	68.40	76.95	85.5

10% allowance for penetrations included in calculation.						
4	Hour	50 mm Thickness				
2	Hours	75 mm Thickness				
4	Hours	100 mm Thickness				



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#### Table 5

	By Volume	1 Hour Seal	2 Hour Seal	4 Hour Seal
	Powder:Water	50mm Thick	75mm Thick	100mm Thick
For Pourable	3:2 (approx)	48 kg dry Compound	71 kg dry Compound	95 kg dry Compound
Grade		per m²	per m²	per m²
For Trowelable	2:1 (approx)	51 kg dry Compound	75 kg dry Compound	100 kg dry
Grade		per m²	per m²	Compound per m²



#### **SHUTTERING**

Depending on the fire rating required fix the suitable shuttering (mineral fibre, expermet steel, polystyrene or wood) so that the required seal thickness can be achieved. Please note that all combustible shuttering products should be removed when Fire stop compound has set.

For wall installations it may be necessary to install shuttering from both sides of the opening and fill at the upper most gap.



Once opening is prepared for installation shuttering should be installed to prevent the spillage of Fire stop compound, ensuring a tight fit around the penetrating services and the edges of the seal.

Install steel reinforcement as required in table 1 to allow the correct load bearing capacity or should no load bearing capacity be required but the opening is greater than 1200mm x 1200mm. Maximum size for non-load bearing seals is 1.44sq/mt.

Ensure that all reinforcement steel is fixed positively using expanding Rawl bolts or cartridge nails.

Add the dry Silverseal Compound powder to the required quantity of water as set out in table 5, to achieve the correct consistency.

Pour approximately 15mm depth of Silverseal Compound in to the base of the seal, covering the shuttering totally and closing any small void around the services. Leave to dry for approximately 30 minutes.

Fill the opening to the required depth with Silverseal Compound to achieve the correct fire rating as set out in table 2.

To complete the seal smooth the surface using a float if necessary.

When shuttering is removed fill any gaps using a trowelable grade of Silverseal Compound to complete the installation. Full cure is 8 weeks.

Apply a label detailing installation date and type of seal.









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