



# **TECHNICAL DATA SHEET**

## 技术资料

## **FIRESOUND**<sup>TM</sup>

#### Description

Firesound  $^{\text{TM}}$  is a one part, water based construction sealant for sealing joints and penetrations where fire resistance is required, or where an acoustic rated sealant is required.

#### **Benefits**

- Fire rating for gaps up to 50mm
- Intumescent, expands when exposed to fire or heat above 90°C
- +/- 20% joint movement capability
- Non flammable
- Water clean up
- Non toxic, contains no heavy metals such as antimony, cadmium, lead or mercury
- Isocyanate free
- Asbestos free
- Excellent Acoustic properties
- Excellent UV stability and weather resistance
- Australian Made
- Very easy to apply and gives a smooth finish
- Low odour
- Paintable
- Priming not normally required

#### Uses

- Sealing exterior and interior construction joints that are subject to movement (up to ±20%) in pre-cast concrete panels, blockwork and brickwork
- Gaps around cables, metal pipes, conduits, busways and ducts that penetrate walls, floors and ceilings

If joint movement is not required,
 Firesound can be used as a putty for filling holes in fire rated substrates

#### **Compatible Substrates**

Concrete	Cable coverings (PVC)
Mortar	Plasterboard
Steel	Aluminium

#### Coverage

Joint Width mm	Joint Depth mm	Yield (450g cartridge (Linear metres)	Yield (600ml sausage (Linear metres)
6 (min)	6	8.4	16.7
10	10	3.0	6.0
12	12	2.1	4.2
18	12	1.4	2.7
24	12	1	2.1
30	15	0.7	1.5
40	20	0.4	0.8
50	25	0.24	0.5

## **Standards Compliance**

Firesound sealant has up to four (4) hour fire rating when tested in accordance with AS1530.4 supplemented by AS4072.1 as well as BS476: part 20; and as appropriate on a gap-sealing system protecting joints and penetrations between various substrates. Please refer to hbfuller.com.au to download specific tests and appraisals, or contact Customer Service. Due to variations in fire rating results using different thicknesses and types of substrates, advice should be sought concerning the suitability of Firesound<sup>TM</sup> in specific applications.

Firesound<sup>™</sup> has been tested in accordance with AS1276.1 and found to perform as an excellent acoustic sealant obtaining a rating of Rw 65 (-2, -5) in a wall constructed using 2

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leaves of aerated concrete plus plasterboard facings. In tests involving 10mm joints in brick walls, Sound Insulation Rating of Rw + Ctr 49 was achieved in a 220mm brick wall, and Rw + Ctr 55 in a 220mm brick wall with plasterboard facing. As acoustic performance is determined according to the type and dimension of substrates, advice should be sought regarding the overall design concept.

Firesound™ meets the requirements of LEED Certification: Indoor Environmental Quality - Credit 4.1 (Low-Emitting Materials: Adhesives and Sealants). Refer to HB Fuller for a VOC Datasheet.

In many regions applicators of fire rated sealants require certification or licences - check local regulations to ensure compliance.

Schedule of Acoustic Test Configurations and Results Summary AS1276.1							
Test	Wall	Gap	Covering	STC	Rw	Ctr	Rw + Ctr
2	110 brick wall	Firesound	Standard Brick	45	45	-4	41
5	220 brick wall	Firesound	Standard Brick	54	54	-5	49
14			Standard Brick & Plasterboard	71	66	-55	55

#### **Performance Summary**

Colour	Grey and white
Skinning time	15 minutes
Working time	30 minutes
Hardness (Shore A)	25-35
Service temperature	-20°C to 80°C
Specific Gravity	~1.5
Shelf Life	12 months

#### **Surface Preparation**

Ensure substrate surfaces are clean, sound, dry and free of oil, grease and surface contaminants such as dust, loose particles, release agents, silicone and water repellents. This is particularly important regarding highly porous surfaces such as aerated concrete or cut edges of plasterboard. In circumstances where it is difficult to ensure completely dust free surfaces applying by brush a 1:1 solution of Firesound<sup>TM</sup> and water as a primer will assist to improve the integrity of the substrate. Refer to HB Fuller Technical Department in case of limitations concerning application to damp surfaces. Areas adjacent to joints may be masked to provide a neat finish. Masking should be removed immediately after tooling.

## **Application**

Apply Firesound™ in ambient conditions between 5 and 35 degrees centigrade. Higher temperatures should be avoided to prevent the possibility of bubbling of the sealant due to rapid moisture evaporation. Do not apply below 5 degrees centigrade. Fill joint with trowel or caulking gun, then tool off with a spatula and clean off excess with a damp cloth. Protect from water for at least 24 hours until a suitable skin has cured (will require significantly longer at temperatures below 15 degrees centigrade). Some shrinkage is normal during curing, and should be anticipated when measuring joints.

#### Curing

Time to cure is highly variable and depends on weather conditions, ambient temperature and depth of joint. Allow longer curing times in cold or damp conditions. Do not allow water contact until at least a thick skinned surface has formed.

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Firesound<sup>TM</sup> is not recommended for use in external applications where 2 non-porous substrates are to be sealed. In these situations Firesound<sup>TM</sup> will find it very difficult to cure and any moisture from rain, dew, fog etc may result in wash-out of Firesound<sup>TM</sup> from the joint.

#### Clean Up

After applying Firesound™, clean all tools and metal surfaces with warm water while the sealant is still wet. Cured sealant will need to be removed mechanically.

#### **Painting**

Firesound™ sealant is suitable for painting when cured. To minimize paint cracking, at least 24 hours should be left before painting where possible. In standard conditions (25 degrees centigrade) Firesound™ may be painted after 6 hours, however, care should be taken to ensure a flexible acrylic coating is used and that a firm skin has developed. In cooler conditions or where the humidity is high, allow a longer cure period before painting.

#### Limitations

- Do not apply to wet surfaces.
- Firesound™ sealant may be used both for interior and exterior sealing, but not suitable for use in water retaining structures or where pooling of water may occur.
- Firesound™ is not recommended in external applications where 2 non-porous substrates are to be sealed
- Firesound<sup>™</sup> sealant has good servicing characteristics when unprotected in internal applications.

- For external use, Firesound™ sealant must be protected from rain or water, until such time as the sealant builds up a thick skin to avoid washout. Therefore do not apply sealant when rain exposure is likely, or before a thick skin can develop. This is typically 24 hours in summer (25 to 30 degrees C), but will be significantly longer in winter, or at times of high humidity
- In many regions applicators of fire rated sealants require certification or licenses check local regulations to ensure compliance

## **Safety Information**

Firesound™ is not considered hazardous under the classification of GHS WHS Version 3. A Safety Data Sheet is available from the H.B. Fuller representative in your state, HB Fuller Australia customer service, or downloadable from the HB Fuller web site, www.hbfuller.com.au

#### Disclaimer

This technical data sheet summarises at the date of issue to the best technical knowledge of HB Fuller Australia. Since HB Fuller Australia cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, review this technical data sheet in the context of how the user intends to handle and use the product in the workplace. If clarification or further information is needed to ensure that an appropriate assessment can be made, the user should contact this company. Our responsibility for the products sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available on request.

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